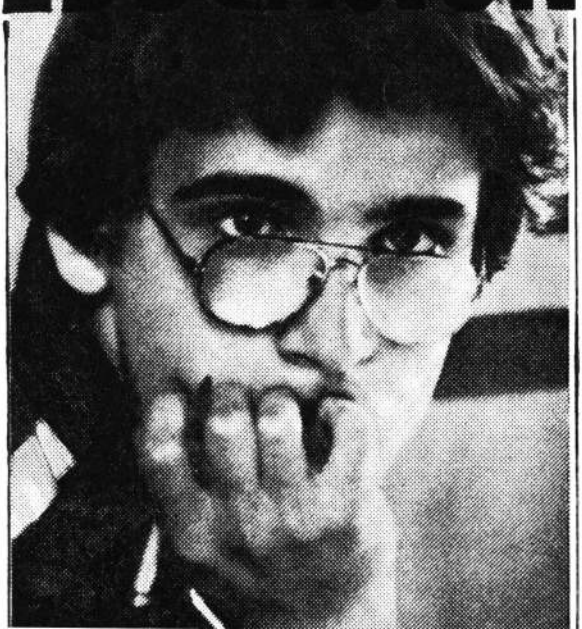
L.I. RUVINSKY

ACTIVENESS AND SELF-EDUCATION



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ACTIVENESS AND SELF-EDUCATION

PROGRESS PUBLISHERS
MOSCOW

Translated from the Russian by *Jane Sayer*
Designed by *Oleg Shanetsky*

Л. И. Рувинский

АКТИВНОСТЬ
И САМОВОСПИТАНИЕ ЛИЧНОСТИ

На английском языке

© Издательство «Прогресс», 1986
English translation © Progress Publishers 1986
Printed in the Union of Soviet Socialist Republics

Р $\frac{0304000000\text{-}250}{014(01)\text{-}86}$ 24-86

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TO THE READER

The present book does not claim to be a research or any other purely scientific work. It is intended for those who are not yet acquainted with the problems of self-education and would like to receive a grounding in them. The author deals mainly with the practical side of the matter.

The role of a person's own activeness in the development of his talents and abilities is great indeed. This was noted by many ancient philosophers, at the very dawn of human civilisation. The considerable interest shown in questions of self-education in this century of social, scientific and technical progress is not, therefore, at all surprising.

A person possesses considerable reserves of intellectual and physical strength and it is entirely up to him to use these potential riches. In the book we shall consider and muse on the problem of a person's possibilities for developing his intellectual and physical abilities. We shall evidently come to the conclusion that a person's psychological potential is extremely great and the opportunities for self-education virtually infinite!

Yet this conclusion is far from indisputable.

There is a tendency to describe special abilities as an anomaly, as exceptional, entirely individual specifics of a given person.

Everything beyond the norm and traditional ideas is therefore rejected as a chance factor or even, sometimes, deception. People are under the illusion that we know everything, that there is nothing left to discover, and that anything unusual is the fruit of the imagination, or a deliberate lie. They seem to forget the well-known idea put forward by the French scholar

Pierre Simon de Laplace: Everything we know is limited, while what we do not know is infinite.

Self-education and the revelation of one's abilities are obviously not so much an end in itself as a condition for success in life. There is probably not a single person in the world who would not like to be happy, but so many people do not see that this valuable mixture of satisfaction and joy can arise in the noble flames of self-education. True, at first glance, it might seem that happiness depends little on a person's will or the results of his work, but rather on good luck or an optimistic attitude to life. The optimist and the pessimist may, it is true, take a totally different attitude to the conditions and events in their lives. The optimist, even under less favourable conditions, including from the material point of view, may be happier than the pessimist whose objective living conditions are better and level of prosperity considerably higher. There is an element of truth in what the English philosopher David Hume said, that an inclination towards joy and hope is true happiness, while an inclination towards melancholy and apprehension is true unhappiness.

Yet much depends on the person himself. Lev Tolstoy expressed very well the role of a person's activeness in attaining happiness: in order to be happy, one must believe in the possibility of being happy. That astute psychologist Dostoevsky, whose works are distinguished by a profound penetration into human psychology, considered gaiety to be man's most outstanding feature. Thus, while striving to find happiness, one must not copy those who are permanently dejected and complain constantly about their fate, as if they were seeking out unhappiness deliberately.

An instructive example of a courageous attitude to life is provided by the Soviet journalist Irina Trius, author of the book *Life is Worth Living*. Bed-ridden, Irina obtained a second diploma, learned five foreign languages, began to engage in scientific work and write a lot. People visit her for lessons in optimism. Irina Trius herself says: "I still believe that a person's happiness is to be found within himself, and depends primarily on his personal qualities and his inner world".

Yet there are still many pessimists, people who feel constantly oppressed, are apprehensive and afraid of illness, bad luck, the

loss of someone's love, and death. These people spoil their own lives and destroy their own health.

Even courageous and staunch people are sometimes, however, inclined to worry about what they lack rather than enjoy what they have. A person's happiness can be multiplied by his optimism, *joie de vivre,* and ability to enjoy the good things he already has.

All this may be achieved through self-education of the character, emotions and an optimistic world outlook.

It would be easiest of all just to decide to be satisfied with what one has and be happy, and some people do indeed manage to achieve happiness in this way.

Some people, however, say that this is not true happiness. I believe no one enjoys an exclusive right to define happiness, but happiness can be fuller and more comprehensive, or short-lived, and ephemeral. So we must consider how self-education can help in achieving the fullest happiness possible.

How should we seek this desired happiness? It is evidently not by chance that many outstanding thinkers of the past and present have been so unanimous in underlining the role of an individual's humanistic stand in attaining personal happiness.

First of all, this means a striving to extend the range of one's good feelings, the ability to derive joy not only from one's own successes and achievements, but also to feel good for other people, those close to one, one's friends and companions. When a person does something good, he makes both himself and other people happy. This implies a mental and emotional ability to put oneself in another person's shoes in order to understand him and feel what he feels. Everyone can learn to feel with others. The self-education in a spirit of humanism is a major condition for happiness and it is up to each individual!

Throughout history, outstanding thinkers have been amazingly unanimous in indicating labour as the source of good deeds for society and for the individual himself. In labour, the person expresses his activeness, creates something new and experiences the joy of creativity. Leonardo Da Vinci believed that "happiness is the lot of those who work hard". Lev Tolstoy, developing this idea, wrote: "Work, work! How happy I feel when I'm working".

Though not every person feels a need to work and enjoys

doing so, anyone who is striving to improve his personal qualities finds in work both satisfaction and a way to increase his opportunities to be happy.

Self-education can also help in solving family problems and attaining family happiness. It should be remembered that errors made in bringing up a child, quarrels between parents as a result of different attitudes to a given problem, rudeness and bad behaviour on the part of a son or daughter, callous ingratitude from growing children—all these can take the joy out of family life. In bringing up children, not only special knowledge and skills are useful; the parents must also set a personal example, so the self-education of adults is a condition for success in moulding a child's personality. Particular attention should be paid to the fact that children's happiness is, at the same time, a guarantee of their parents' happiness.

The task of cultivating a feeling of joy in children does not, of course, mean that one should pander to childhood whims. The French literary critic Pierre Boiste wrote: do not idolise a child, or he will demand sacrifices when he grows up. While doing everything possible to make a child happy, it is important to form an intellectual foundation of optimism in his consciousness, as well as good, humane feelings, an ability to understand and enjoy everything beautiful in art and human relations.

In other words, happiness "lives" and "develops" with a person; it must be found and retained within oneself. Human joys, especially the happiness of being needed by and useful to others, of discovering something new, of seeing and understanding the world more profoundly, of learning, by controlling one's feelings, to be in a permanently benevolent and lively state, is possible for every person who is mentally and physically healthy. To reveal one's intellectual and moral strength and willpower, to improve one's physical abilities, is within the power of the individual himself.

Chapter 1

ACTIVENESS AND SELF-EDUCATION OF THE PERSONALITY

Before determining the main ways and means for the individual to develop his personal qualities, however, it is important to clarify the fundamental opportunities for activeness in the self-development of the personality.

In principle, an activity approach to characterising the individual has become established in Soviet science. As the well-known Soviet psychologist Alexei Leontyev[1] noted, this approach proceeds from the assumption that the real basis of a person's personality consists of the totality of his relations, social in nature, to the world, which are realised in the totality of his diverse activities.

The activity approach helps in understanding the individual as a socially conditioned phenomenon, existing in interconnections with the social environment. After all, the personality is not a closed, inner formation, but an integration of a person's activities in the system of social relations and the person himself is formed as a specific aggregate of social relations.

The tendency to consider the individual merely within the bounds of his activities, one of the chief components of which is the consciously set goal, excludes, however, from the sphere of the individual the processes taking place in a person's subconscious. Yet these processes may constitute deep-lying motives and psychological forces.

Thus, for a comprehensive and deeper understanding of the individual and his development, the analysis needs to be extended, considering activities as just one, though a very important form of the conscious, purposeful human activeness.

[1] A.N. Leontyev, *Activity, Consciousness, Personality,* Moscow, 1975, p. 183 (in Russian).

Only with such an approach can one trace the genesis and development of the human personality, for initially it is precisely the unconscious activity of the new-born child, expressed in his interaction with external conditions, that furthers their interiorisation. As the well-known Soviet psychologist Sergei Rubinstein[1] stressed, the result of an external impact depends on the inner world of the individual. So, he believes, the theories that emphasise only determination of the internal by the external fail to reveal the internal conditionality of this external determination and thereby break off any connection and mutual conditionality between the internal and the external in a person.

Essentially, in his thesis of a person's activeness being his interaction with external conditions, Rubinstein is proceeding from the presumption of the universal role of reciprocal action as a condition for the development of matter. "*Reciprocal action* is the first thing that we encounter when we consider matter in motion... Thus natural science confirms ... that reciprocal action is the true *causa finalis* of things."[2]

Both the forms of reciprocal action (from the perception of external conditions to their deliberate modification and the personality itself) and the correlation between the conscious and the unconscious in the individual, change, of course, as the personality develops towards a higher level of consciousness. Even so, the unconscious continues to exert an influence on the motives and behaviour of the fully formed personality, too.

The well-known works by Freud and his followers have contributed greatly to our understanding of the role of the unconscious in the development of the personality. Developing the idea of the ousting of the individual's unrealised strivings in the subconscious, Freud showed the link between the conscious and the unconscious, which is very important for our analysis of the role of activeness at the different levels of a person's realisation of the process of self-education. Considering the leading role of consciousness in the self-education of the individual, however, we believe Freud's research, which stressed the uncon-

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[1] S. L. Rubinstein, *Being and Consciousness,* Academy of Sciences of the USSR, Moscow, 1957 (in Russian).

[2] Frederick Engels, *Dialectics of Nature,* Progress Publishers, Moscow, 1974, p. 231.

scious, with the conscious being allocated a secondary role, should not be taken as the basis.

The eminent Soviet psychologist Dmitri Uznadze showed the role of purpose in the human psyche. He stressed the possibilities of a person's consciousness influencing his aims. In Uznadze's opinion, the conscious force that actualises the aim, raising it to the level of a conscious purpose, is the will. Thanks to will, it is possible to switch to new aims and purposes, recognised as being more feasible and suitable.

Thus all activeness, initially manifested in a child at the level of unconscious processes, later comes under the ever growing influence of the developing consciousness and begins to acquire the character of conscious activeness. Beginning with the reflection of external impacts in the child's properties and continuing later at the level of human activity, the process of activeness facilitates the self-change of the personality.

The highest level of conscious and purposeful self-change aimed at the development of one's personality is self-education. The processes of self-education, leading to the development of personal qualities and the psyche of the individual, are synonymous with self-development.

* * *

Self-education is only possible at a certain level of activeness and general development of the individual. It is essentially prepared for by the entire course of the moulding of the personality. At first, the child can only carry out involuntary actions, so its activeness is unconscious in character. Yet even the unconscious activeness of the child, in interaction with the world of adults, facilitating the change and development of mental qualities and assimilation of human experience, leads to the emergence of deliberate actions and conscious activeness in the child. Unconscious activeness does not disappear, but is transferred to the sphere of the subconscious, interacting with a new form—conscious activeness. This means there is a certain dependence and, moreover, interaction between the subconscious and the conscious, as evidenced by experimental studies of the mechanisms of self-regulation on the unconscious and conscious planes (see Chapter 2).

Activity as activeness on the conscious plane promotes self-change in a person. It not only helps the individual assimilate general social experience, but also to reveal his potential.

It should be noted in particular that any activity as a form of highly organised activeness in a person, not just labour activity, may lead to self-change. Underestimation of the role of intellectual activeness in self-change is connected with the tendency to a sort of mechanistic materialism to recognise only external material actions as the source of new changes in the human psyche. It ignores the fact that a person's mental world, formed under the influence of external factors, itself becomes reality, capable of self-change and creating new knowledge, ideas and definitions.

In order to understand the material nature of the transformations in the process of mental activity, it is important to recall the teaching of the great Russian physiologist Ivan Pavlov (1849-1936), on the second signal system (human speech) and the character of the formation of complex associative links in the cortex, materialising mental development. The role of the word in the formation of conditioned reflex links is well known. A verbal assessment of the personal meaning of phenomena, joining in associative connection with conditioned reflex systems formed earlier, facilitates the formation of new structures that take account of and reflect previous ones to one degree or another. In this way, the psyche, though its development is initially conditioned only by the child's practical experience, later, as complex chains of associative links are formed and the conditioned reflex structures and their interlinks are transformed on a higher level, receives more and more new stimuli for the self-development of mental activity.

As Pavlov noted, in the process of his interaction with the outside world, a person directs his activities towards "equilibrium" with the outside world, towards the achievement of a certain purposefulness in the relations with it, by means of adapting to it, this being achieved thanks to the considerable flexibility of higher nervous activity. "The main, strongest and constant impression received from studying higher nervous activity by our method," Pavlov wrote, "is the extreme flexibility of this activity, its tremendous possibilities; nothing remains im-

mobile, inflexible, and everything can always be achieved, changed for the better. . ."[1]

Such adaptation, if conscious, may, of course, be achieved through self-education, but the two are not identical, for adaptation is not always determined by the aim of changing oneself. In adaptation, it often happens that the person wants to remain the same, but appear different, and wants to appear different in order to remain the same.

In the course of self-education, qualitatively new phenomena take shape in a person's psyche, characterising his interaction with the outside world, in contrast to direct, often forced adaptation. By consciously changing certain features of his character, habits and so on, the person acquires an opportunity to change some of his requirements and desires and thus, at his own discretion, influence the very character of the necessary relations with the environment, and not only strive to maintain the type of relations established previously, though possibly misunderstood by him. Thus, for example, youth S built his relations with others of his age on the principle of satisfying his own vanity. This led to his trying, by all available means, to earn the approval of his companions, and often doing unseemly, improper things. In the process of self-education, S realised the pointlessness of his behaviour, developed moral integrity, adherence to principles, and humanism in himself, overcame his vanity and thus qualitatively changed the nature of his relations with his associates, basing them on new foundations: correspondence between his behaviour and social duty, a striving towards socially useful goals, humane actions, and so on. As a result, he began to experience satisfaction not from emphasising his own merits, but from awareness of a moral deed fulfilled, of achieving a correctly set goal.

The ability to consciously influence the character of necessary interrelations by means of self-education allows a person to determine the line of his self-education independently, taking the specific situation into account.

The role of self-education cannot, therefore, be reduced to

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[1] I. P. Pavlov, *Collected Works* in six volumes, Vol. 3, Book 2, USSR Academy of Sciences, Moscow, Leningrad, 1951, p. 188 (in Russian).

isolation from the environment, or to inexpedient adaptation to it; self-education, being a major motive force behind mental development opens up a new stage in the interaction between the individual and the outside world, in other words, a new stage in its development. Moreover, self-education always remains a socially determined process.

Marx highly appraised the role of personal efforts in the formation of a person's consciousness. He stressed the social character of self-education and its connection with social relations and living conditions. "My *own* existence," he wrote, "*is* social activity, and therefore that which I make of myself, I make of myself for society and with the consciousness of myself as a social being."[1]

It should be stressed, in particular, that a person's self-education allows the process of his mental development to be more regulated. Thus, the phenomenon of "blind", spontaneous copying and identification, carried out unconsciously, may prove to fall within the sphere of influence of a consciously adopted attitude of copying positive behaviour models or ideals. Unconscious copying does not necessarily cease, but the models for copying are ultimately determined by the person's consciousness.

In influencing subconscious processes, self-education itself passes through different stages as the person becomes aware of himself as an individual, in the process of his interaction with the outside world.

* * *

The rudiments of self-education can be observed very early in a person: in the process of the child's direct adaptation to external conditions and adult demands, in "self-correction", which testifies to a desire on the child's part to change certain forms of his behaviour. At a later age, the child decides to reform, meaning only specific aspects of his behaviour: not to offend friends, to do his homework, look after himself, and so on. He does not yet link his behaviour and the quality of his

[1] Karl Marx, *Economic and Philosophic Manuscripts of 1844,* in: Karl Marx, Frederick Engels, *Collected Works,* Vol. 3, Progress Publishers, Moscow, 1975, p. 298.

personality as a whole. Yet the child knows, thanks to the assessments of adults, which acts bring approval and which—disapproval. So, in reforming his behaviour, in order to become "good", he is essentially prompted by an unconscious desire to change for the better, which introduces rudiments of self-education into "self-correction".

Perhaps, however, the fact observed by educators that a child confines his "commitments" to the promise not to do particular things, is conditioned by the way educators focus his attention only on individual aspects of behaviour. Perhaps the child himself, while agreeing with the censure of the external aspect of his behaviour (as the pedagogue requires), also presupposes correction of the shortcomings in his personality in general.

In order to verify this supposition, the following experiment was carried out. Thirty junior schoolchildren who had done something naughty were asked: "How should you correct yourself?" when they promised to be "good" and to "reform". This was meant to remove the children's one-sided orientation on changing merely the external aspect of their behaviour, as they were often encouraged to do by the pedagogue. Even after being asked this question, however, the children expressed no interest in correcting the shortcomings in their personality, confining themselves to remarks of the type: "I won't break the bushes; I'll plant a tree in the yard"; "I won't tease the boys"; "I won't be nasty to the girls"; "I promise never to shout out during lessons any more," and so on.

Then we tried to formulate the question in such a way as to direct the child's attention not to the consequences of what he had done, but to an explanation of the reasons for it. The children were asked: "Why did you do it?" The answers were: "I shouted out in the lesson because the teacher didn't ask me for the answer" (Lena V.); "I hit Tanya because she was teasing me" (Grisha I.); "I skipped the art lesson because everyone else did" (Luda T.), and so on.

These answers show that the children do not see the shortcomings in their own characters behind their behaviour.

Even if a child below adolescence is specially informed of the dependence of his behaviour on specific qualities of his personality, he still does not link the two.

One could, of course, imagine a situation when, owing to a shift in the age barrier, the child under study could reach a new level of self-consciousness, but this would merely testify to his transition into the adolescent category, so the thesis that before adolescence, the degree of a child's self-change does not rise above the correction of individual acts, remains valid.

While taking shape in the self-correction of individual acts, however, self-education develops as the child links his acts and his qualities as a person, in the process of the realisation of his personality.

In children these links are established through development of the ability to assess one's own deeds, to describe them qualitatively (a bold, honest, cruel deed, and so on). The qualitative characteristic begins to be seen by the child as a feature of his own character, and the actual deed as the result of this.

Let us stress that, in the context of the given concrete analysis, we are interested in whether children are able to give a qualitative assessment of their own behaviour, and not how deeply they reveal or are able to reveal the reasons for their actions.

As research has shown, junior schoolchildren can describe a number of qualities of the human character: honesty, discipline, kindness, boldness. This research testifies that even seven-year-olds are already, to a considerable extent, aware of moral standards. In our study, the 96 children of this age group (out of 230 studied in all) were, on the whole, able to describe the qualities of the personality: "A bold person swims across wide, quick-flowing rivers. A bold person goes out into space without fear" (Vova S.); "A persistent person takes things right through to the end, without giving up half way. A persistent person works hard" (Sveta R.); "An egoist is a person who does everything for his own benefit, to the detriment of others. An egoist is only concerned for himself, and is indifferent to the interests of others" (Kolya D.); "A good person is concerned for other people, tries to do as much good as possible for other people. A kind person does not wish others ill" (Lyuda V.). Children are also often capable of giving a moral assessment of their own behaviour: "I was nasty to the girl, I pushed her and teased her. That was a bad thing to do (Vova T.). "This is an honest deed: I gave the girl the beautiful badge she had lost"

(Lena R.); "It was cowardly to run away from the puppy" (Sveta O.). Children can also establish the link between the deeds of others and their qualities: "Lena was acting honestly in giving the boy the purse he had lost. Lena is an honest girl; she doesn't take anything that does not belong to her and doesn't deceive the teacher" (Vera P.); "Vasya is a bad boy: he fights, is rude to the girls, does not like animals" (Zhenya I.); "Petya is an undisciplined pupil; he chats and laughs during lessons and does not listen to the teacher" (Vova T.).

Here are some examples to illustrate our other assertion that, in spite of obvious attempts to understand their personalities, children are unable to establish the link between individual acts and the qualities of their characters, and they explain their behaviour merely in terms of external circumstances. "Petya pretended he had horns and I laughed, and then began telling him how we had been to the woods" (Vova L.); "As soon as I start doing my homework, my friends come and ask me to play football" (Slava T.), and so on.

It might be presumed that if a child were informed about the dependence between deeds and personality characteristics, he would establish the link between them. In order to find out whether this was true, 60 junior schoolchildren were selected and asked to give an assessment of a particular act. In individual discussions with the children, it was explained to them which of their qualities were good and which were bad showing the reasons for their behaviour and pointing out the links between their acts and qualities: "Tolya, you shout in lessons, you have no patience"; "Vova, you have become more persistent—you do your homework well and complete it"; and so on. Afterwards, in their answers to the questions: "What are your good and bad points?" "Why did you do that?", the younger children revealed the knowledge about their personality traits, explaining some of their deeds with reference to their good qualities and shortcomings. One might imagine that such information, in combination with the preconditions for self-consciousness mentioned above, would be enough for the child to transpose the qualitative description of his behaviour to his personality, for him to establish the links between his actions and his personal characteristics.

Analysis of children's motivation for their behaviour shows,

however, that, in connection with their personality traits, they mention only the deeds pointed out by the experimenter and merely reproduce the links he has established. Thus, for example, nine-year-old Kolya S. repeats after the experimenter: "I disturb the peace in class—I have no self-restraint". But he provides a different motivation for his other acts, testifying to his highly impulsive nature and lack of control, referring merely to the circumstances of his life: "Why did you fight Seryozha?" "Well, why did he call me names?"; "Why don't you stick to the timetable?" "I hung it over the bed, but my mother took it down."

Children's inability to transpose the links established by the pedagogue, using a specific example, between acts and their personality traits to other situations in which they reveal the same shortcomings or good qualities shows that they are merely formally repeating the adult's opinion.

In order to verify this assertion once more, the influence of censure of a given misdeed of the schoolchild by a teacher enjoying particular authority or by other children in the class was analysed. If the child is conscious of his shortcoming, his sense of guilt after the censure should increase his dissatisfaction with himself and promote self-education (as is usually observed in organising the self-education of adolescents). In the given situation, however, no such reaction was observed; the children were not involved into the process of self-education, and only self-correction of individual acts was characteristic of them, i.e., they did not establish any link between their acts and their personality traits.

Thus, the teachers explained to the seven- and eight-year-olds who could not concentrate during lessons and whose minds constantly wandered that the reason for their bad results was their weakly developed powers of concentration. Later, the pedagogues repeatedly told these children off for their bad work, reminding them of the need to concentrate. The pupils became more attentive in class. In order to find out whether the reason for their greater self-control was really a desire to correct their personality shortcomings, an experiment was organised in which numbers were counted against a background of disturbances (a tape of the numbers one to ten, counted out loud, was switched on at full volume). In each series of experiments,

the children counted fifty pairs of numbers. If the first number was greater than the second, they were to subtract, if smaller—add them. In the first three series of experiments, the children were told they were to help the stock-taker in counting the pairs of numbers. The children were warned that the results would not be assessed. In the first series of the experiment, control data was collected on the precision and speed of calculation without disturbance. In the second series, with the tape-recorder turned on, the precision and speed of calculation fell by an average of 49 per cent. Before the third series, the experimenter told the children that calculating numbers against a background disturbance improves their powers of concentration and helps develop their self-control. It might have been expected that such information would assist in the self-education of attention and an active resistance to the disturbances, if the children realised their shortcoming. This is what happens in experiments with adolescents. But the absence of any rise in the resistance to disturbance in the activities of the children during the third series indicates that younger pupils did not try to concentrate harder. Perhaps, however, the children were simply unable to increase their control over their activities or improve their results, so their attempt to concentrate harder had no effect on the results. Before the fourth series of the experiment, the teacher warned the children that their results would be assessed. There was a 20 per cent increase in their resistance to the background disturbances, testifying that the above supposition was incorrect—the children did not realise their shortcoming.

Even if adults talk to a child about his personal qualities, this does not lead just to awareness of them, since the child cannot imagine them specifically, relating them to the real phenomena known to him. For the schoolchild to consider a certain property of his nature in different situations as the reason for his behaviour, a personal attitude to the given trait is required. (Otherwise the external conditions, the specific situation in which the child finds himself, in which he acts, screen the inner "qualitative" reasons for his behaviour). The explanation of this is that the quality of a child's personality and the outside world act in his consciousness in "subjective unity", in other words, the child sees his qualities merely as external manifestations, i.e., his actual deeds, which adults either "like" or "dislike".

The child sees the sense of his "correction" as doing things that will not be assessed negatively. Even if he expresses his wishes, as a rule he is aware of them as a consequence of external factors.

Only in adolescence are adequate conditions created for the child to "pick out" the qualities of his personality from the "outside world", for him to see them as reasons for his successes or failures.

The level of self-awareness achieved in adolescence allows the pupil to assess his increased mental and physical possibilities, to realise that they do not correspond to their previous place in the system of interpersonal relations. As a result, as the Soviet psychologist Elkonin rightly noted, it is characteristic for adolescents to strive for independence, to fence off certain spheres of their lives from interference by adults—especially relations with friends, girls and boys, their pastimes, to strive for independence in study and other occupations, expressed "in a refusal to accept help (especially from adults) and manifestations of dissatisfaction when adults try to check on their work and its quality. At the same time, it should be stressed that there is a fundamental difference between this manifestation of independence and the striving for independence at an earlier age, which consists merely in the child trying to master a given process of activity (on this plane the demand 'I'll do it myself' is made) or overcome restrictions that hamper the child in his contacts with the world around him. In adolescence, however, this specific feature of the child's personality is transformed from a means into the sense-forming motivation for his actions, begins to determine his position in his interrelations with the outside world. The adolescent now often does things simply in order to emphasise his independence".[1]

The change in the child's position in his interaction with the outside world, the striving to become independent of it and, on this plane, "countering" his possibilities to it, help the adolescent understand the qualities of his personality.

Typical of adolescents are remarks like: "I want to be inde-

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[1] D. B. Elkonin, "On the Problem of the Periodisation of the Psychological Development in Childhood", *Voprosy psikhologii* (Questions of Psychology), No 4, 1971, p. 8 (in Russian).

pendent. I want to be like an adult and do what I want"; "I don't want to give in, I want to do what I have decided myself; "I'm already grown up, and they still think I'm a child", "I'm already adult. I want to decide myself what I do", and so on.

Since, however, the adolescent lacks sufficient experience to make his newly-emerged pretensions fit his actual powers, he strives to consolidate his independence more than is possible and realistic. Thus, his "interaction" with the outside world is accomplished from the position of maximalisation of independence, so a conflict emerges between the adolescent's striving for greater independence and the possibility of fully satisfying it.

Experiments in this sphere, as well as systematic observations and analysis of children's activities, and questions put to adolescents: "Are you independent enough? If not, why not?" revealed a dissatisfaction with the actual possibility of expressing their independence in 97 per cent of those questioned. "My father keeps telling me to be independent, but somehow I don't seem to be able to, and things never work out the way I think they will. But I will become independent" (Tolya R.); "I want to be independent. A person needs independence. I'm already in the sixth form. But things don't always turn out as I wish. Yesterday I started to mend the radio. I just connected something wrongly in one place, and my father immediately said 'Let's do it together'. But I wanted to mend it on my own. So I can't be independent" (Kolya S.); "I would like to be more independent in life. But my mother still thinks I'm a baby, doesn't let me go out in the evenings, doesn't let me go to the swimming pool" (Olya T.) "I couldn't say that I'm independent. But it's difficult to say why. Unfortunately, it just works out that way" (Lyuda Ch.).

"I could be more independent than they let me be or than I manage to be"—is the usual logic by which the adolescent motivates his inflated claims for confirming his independence. As a result of experiencing this contradiction and realising his limited powers he discerns his character traits as an object for his own claims, and he begins to see them as the cause of his behaviour. Motivation of this type becomes characteristic: "I'm afraid of the dark, because I'm weak-willed" (Nadya P.); "I have no self-control—I'm inclined to forget myself and call out

in lessons, and sometimes even talk impudently to the teacher" (Misha O.); "I lack decisiveness, I can't always find the courage to put my hand up so that I'll be asked; I'm usually silent in lessons and take a long time to decide whether to get on with my work or have a rest first" (Slava L). At the same time, the adolescent also becomes aware of his positive qualities: "Today I became bold, and hit K. back. Everyone's afraid of him" (Tolya S.); "I came first in the swimming competition. I've got will-power" (Tanya R.); "It's nice to know I'm clever. Today I was praised for my good results in the biology competition" (Sveta L.).

While realising his personality traits, the adolescent rejects his role as a passive object for upbringing, to be "moulded" by others; he strives to educate himself, i.e., to become the subject of upbringing.

The adolescent's realisation of his personal traits, the striving to become more independent in life, in the formation of himself, dissatisfaction with his own shortcomings, which hamper him from holding a worthy place among his coevals—all this prompts the adolescent to engage in self-education. In the 1978 experiment, out of 364 12-13-year-olds, 269 engaged in self-education.

While, however, the adolescent's direct identification of a given deed with a specific quality of his personality furthers the process of self-education it at the same time limits the opportunities for it. The adolescent's self-assertion of his personality traits takes place in actual deeds: "I did it because I had become brave, strong-willed, resolute, honest and so on"—is the usual sort of motivation given by an adolescent for his actions. The adolescent identifies his deeds with the qualities corresponding to them, so he does not single out these qualities as special objects for education. This is the first level of self-education, which may be defined as the initial period in the self-assertion of the adolescent's character traits.

The low level of awareness in the self-education of adolescents, their impressionability and frequently changing interests, lead children of this transitional age to being unable to carry out their self-education independently in accordance with consciously set tasks. Thus, the adolescent, attracted by an example of courageous behaviour in a person he knows, decides to become strong-willed too, begins to take part in sports, and carry

out difficult jobs around the house. If, however, he falls under the influence of the hero of a cheap detective film, he tries to assert his will by means of risky, "dashing" behaviour.

Thus, adolescents who, by means of self-education, strive to assert their independence, prove unable to direct this process consciously, with the result that external factors may play the decisive role. Such self-education may be called "situational". For three months, for example, the adolescents under study changed their "modes" of self-education under the impact of new films, books and talks: from strict observance of moral-ethical rules to "heroic", reckless deeds, insubordination towards adults, and so on.

It should be stressed that there are considerable opportunities for the environment to influence the process of self-education in adolescents. In a favourable situation, the striving towards independence activates children's independent activities, encourages them to find ways and means for independently fulfilling socially valuable tasks, and for the moral development of their personalities. For this reason, the position of maximalism of independence, characterising the specifics of reciprocal action with the outside world in adolescence, does not yet, in itself, determine the essence of moral relations between the individual and the environment.

If teachers and parents do not take account of the adolescent's striving for independence, and treat him as a child, severely restricting his rights, the adolescent begins to resist the teachers' demands, the family's way of life and the like, and the so-called crisis of adolescence begins; the self-education of the adolescent acquires a negative meaning. A nihilistic attitude on the adolescent's part to teachers' requirements, and conflicts with educators encourage him to seek ways to assert his independence in another sphere, where random negative influences are possible. In this case, the adolescent begins to form in himself the features of a "hero" of this type: rudeness, cruelty, individualism, deceit, and the like.

Whatever the direction taken by self-education in adolescence, it remains situational.

As schoolchildren grow into young adults, certain preconditions are formed for the discernment of their personality traits as a special object for education.

The adolescent's specific experience promotes the destruction of direct, formal links between the given deed and personality traits.

The following arguments become typical: "I have tried hard to be strong-willed—taken part in sports, done my homework regularly; ... then yesterday I suddenly did something cowardly. It all happened unexpectedly, of course. But why am I strong-willed sometimes and not others? What is will-power?" (Seryozha R.). The pupils begin to reject the logic of arguments such as: "Once I have done something brave I become strong-willed and resolute", and so on. Instead, these arguments are replaced by "I shall become strong-willed if I can always do certain things". Thus, a 14-year-old writes: "I shall become a really strong-willed person if I train physically all the time, study intensively, without making any excuses for myself, behave in a disciplined way in all lessons, overcome my lack of self-control in school, at home and outside."

At the same time, the adolescent's experience of the contradiction between the striving for greater independence and his own possibilities prompts him to seek the reasons for his successes and failures, and increases his interest in his inner world. "What a bad thing I did. Why can't I become a clever, strong and beautiful person, respected by all and an example for everyone? At one time everything was going so well that I thought I had become a real person. A person with a capital letter. And now everything is spoiled! What am I exactly? How I'd like to be able to understand myself..." one 14-year-old girl writes.

Beginning at the changeover from adolescence to youth, these processes continue to gain in depth and changes occur in the individual's position in interaction with the outside world. The adolescent's maximalism of independence evolves into a striving to find and draw conclusions concerning his real position in the world. This does not mean that the youth, in contrast to the adolescent, no longer tries to assert his independence and that his assessment of his possibilities is necessarily objective: pupils of this age often overestimate themselves or, become disillusioned and underestimate their powers. So, at this age, a young person's assessment of his possibilities is not fully objective, though it differs from that of the adolescent. This is shown, for example, by the arguments given by young people; "You have to take

account of your real strength and not make mistakes. You must be in life what you are really capable of being, what you are equal to, what suits you." "Again I made a mistake, acted hastily, overestimated myself," says one senior schoolchild. "Every time I promise myself to think before I act, to think how best to achieve my goal, to avoid doing something stupid, after all not everything is as simple as it seems at first glance. In general I must decide, so as not to make new mistakes, what I am really like, how I appear to others, what I am best at in life, how I should behave in order to earn respect." Or here is another statement by a schoolgirl: "There are thousands of interesting things I'd like to do in life, so many places to go, so many things to achieve. But these are just dreams. It is important to find a place in life that is really yours, that suits you best of all. It is important to find your niche. This doesn't mean, of course, that you shouldn't strive for great things. It means that you shouldn't overestimate yourself, that you must be equal to your abilities."

It is interesting to compare the answers given by adolescents and by young adults to the question: "What does it mean to find one's place in life?" Characteristic of the older age group were answers like: "It means to occupy a place suited to one's abilities and strengths, to decide questions arising in one's life correctly, to tackle matters successfully", while of adolescents: "It means to be independent, to do what you want."

The change in attitude with age is engendered both by the growing person's assimilation of the system of knowledge about the world and by experience, and chiefly by the mistakes of his adolescent maximalism.

The young adult's striving to find and draw conclusions concerning his real place in life helps increase his interest in getting to know the world about him and his own self. Experience of the activities of the growing person in correspondence with the new position taken at this age, and realisation of his real possibilities help young men or women to understand their character traits. The formation of a world outlook, and the process of the abstraction of personality traits from their "adolescent" unity with behaviour lead to a new stage of self-education, which is now raised to the level of self-improvement of the individual as a whole. The person realises his actions as acts of

self-improvement, understands that, in doing something, he is educating himself.

When abstracting the character traits from their unity with deeds, realising the former as a special object of education, and generalising their experience of self-education, young people often come independently to the conclusion that special, systematic work is required on self-education. Out of the 316 individuals studied in the 1981 experiment, 275 were engaged in self-education, and 149 of these were already at the level of self-improvement of individual character traits (1978). Characteristic of the latter group were arguments of the type: "I want to foster will-power and persistence in myself and make myself ready for work. To this end I have outlined a programme of work on myself. For this I fulfil my duties carefully, try to read more, go to museums, take part in sports" or "I would like to foster resoluteness in myself. For this I have drawn up a list of things that I have decided to fulfil at all costs in my studies, sport and life in general. I have decided to see everything right through to the end. I often note down my successes and failures in my notebook. I set myself new tasks for fostering resoluteness."

The formation of a world outlook, and a keen awareness of the need for self-education in young people allow schoolchildren to manage their self-education and determine its direction independently, in accordance with their system of convictions.

It should be stressed, however, that independence in choosing the direction, course and means of self-education in no way means a lack of any close link between the young person's self-education and living conditions, the demands of society. It is interesting to trace how education influences the process of self-education. Thus, if education is pedagogically fruitful, it furthers the process of self-education, creates favourable conditions for the activities of young people in developing their positive qualities and stabilises them. Even when the young person's self-education has taken a negative direction, external positive impacts can have a positive effect on the formation of the adolescent's character. True, in this case the change in the direction of self-education is already connected with the process of re-education, i.e., with the destruction of the individual's old ideas

and habits and the formation of new ones. Consequently, a change of direction is possible in a young person's self-education under the influence of external factors. Thus, the dependence of self-education on the education process undergoes a change in young adulthood. Education now merely creates the conditions that facilitate or hamper a given direction in self-education, but this direction is determined consciously by the individual.

Consequently, self-education at every age has particular possibilities and specifics, depending on the degree of the individual's realisation of his personality and the position taken in his interaction with the outside world.

This refers to the age possibilities for self-education, their realisation depending on the conditions of life and education. Research has shown, for example, that the adolescent self-assessment remains dominant in some young people.

In our research, in order to reveal the level of self-assessment in adolescents and its interconnection with the specifics of self-education, an experiment was carried out in which pupils were asked to fulfil various tasks, and then to relate the actual results of their activities with self-assessment of their possibilities. In order to reveal the persistence of the self-assessment of the adolescents taking part in the experiment, "changing" situations (success and failure) were created artificially in their activities by giving them difficult and easy tasks. In addition to lengthy observations and comparisons of the data obtained on the pupils' self-assessment, discussions were held with them and they filled in questionnaires. The experiment assisted in the transfer of self-assessment from one level to another and made it possible to study the development of self-assessment itself.

Comparison and analysis of the data obtained in a number of experiments made it possible to judge which level of self-assessment dominated at various periods in the adolescent's development and to describe the fundamental links between self-assessment and the self-education process.

The first level of self-assessment is procedural-situational. The child does not establish a link between his actions and individual characteristics. He assesses himself merely according to the immediate external results of his activities, successes or failures. Since the results obtained do not necessarily correspond to the individual's personal possibilities and may be conditioned enti-

rely by the spontaneous course of external events, self-assessment in this period has a tendency to be unobjective. The random, chance and contradictory nature of external situations furthers the tendency towards instability of self-assessment. Self-education at this level of self-assessment consists in the "self-correction" of deeds, when pupils decide to reform, but do not mean by this the development of their individual characteristics, but merely the fulfilment of specific actions, and vice versa.

The second level is qualitative-situational. The children establish the direct links between their behaviour and their character traits, i.e., the performance (or otherwise) of a given act is identified with the presence (or absence) of the corresponding quality. The adolescent does not consider his character traits as an independent reality; nor does he realise that a personality trait may be expressed much more comprehensively or in a more complex way than an individual act. Since an act may be a chance one and sometimes contradict other acts, the adolescent's character and self-assessment at this level tend to be unobjective and unstable. By identifying the development of a given personal trait only with a given act, the adolescent is inclined to confine his self-education programme to individual, separate acts. Chance fluctuations in self-assessment lead to a dependence of self-education on the situation.

The third level is qualitatively static. In the consciousness of the adolescents, the direct formal links between acts and personality traits are broken off. The characteristics are abstracted from specific deeds, and appear in the adolescent's consciousness as an independent objective reality. The realisation by the adolescent of the fact that an individual act is not always conditioned by a specific feature of his character and, at the same time, his still inadequate understanding of the new dialectical links between personality traits and a person's behaviour, lead to a certain gap in his consciousness between these qualities and his behaviour. The level achieved previously plays a dominating role in self-assessment, the changes in the personality traits that may take place at a different level of behaviour being underestimated. As a result, the adolescent's self-assessment tends to be not objective enough. Realisation of the fact that a single act cannot, in itself, form the desired quality, and the collapse of hopes of easy success in self-education undermine the

adolescent's confidence in the possibilities of self-education in general. Although, however, at this level of consciousness, the interest in self-education tends to fall off, the self-education programme, if one is outlined, becomes, on the contrary, more comprehensive.

The fourth level is qualitatively dynamic. The adolescent or youth realises the dialectical links between his personality traits and his acts. The "separation" of the qualities of his character from his actual behaviour is overcome. The adolescent's self-assessment tends towards objectivity; it is dynamic changing in accordance with the changes in his intellectual world, and always reflects the real development level of the character traits. This makes self-education more diverse in nature. The fact that the individual's own attitude to self-education has not yet become criterion for self-assessment, reduces, however, the opportunities for self-education.

The fifth level is qualitatively perspective. The young person's self-assessment of his personality involves his attitude to self-education, taking account of his possibilities for improving his inner world. At this level, the young person proceeds from the assessment of himself not only according to those of his qualities that have already taken shape, but also from the potential for the development of his personality, which promotes the conscious, planned, active process of self-education.

These levels reflect to a certain extent, children's age specifics. Thus, for children below adolescence, the first level is characteristic, for adolescents—the second, for those growing from adolescents into young adults— the third, and for young adults—the fourth and fifth levels. As the research showed, the self-assessment possibilities of each age are not always realised.

The development or suppression of these tendencies in self-assessment and the self-education of the child or adolescent depends on certain external conditions.

While emphasising the inevitability of the development of self-education as a specific phenomenon dependent not only on age, but also on the interaction between the individual and the outside world, it should be recalled that the moral aspect of the individual's position and content of his self-education are determined by the level of development of society, the

methods and conditions of the educational process in general. The need for and possibility of deliberately activating the self-education of children and adolescents are obvious.

At the same time, it should be stressed once more that, in self-education account must be taken of the age specifics, both physical and mental. However much the boundaries of each stage of development might shift, this does not contradict the idea of the presence of these very stages and the inner logic of their emergence and sequence. Depending on the social conditions, the content of the mental age specifics and their structure may undergo changes; yet this does not contradict the thesis of the dialectical nature of a child's development, either, i.e., of self-advacement and the presence of qualitatively specific age stages in it. True, by changing the content and methods of training, striking successes may be achieved in the development of individual mental processes and in their functions in children; as a result of this, such specifics of mental processes as were always considered inherent only in older age-groups now become characteristic of the younger ones (for example, the appearance of theoretical forms of thinking in junior schoolchildren). These facts seem to cast doubt on the presence, in general, of any boundaries in age development and the existence of any stages at all in it. We believe, however, that this argument is even less capable of abolishing the concept of age, since the latter is characterised not by the simple aggregate of individual specific features, but by the specific nature of the integral structure of the child's personality.

The fact that *realisation* is a process that, as it were, fuses the diverse and contradictory external influences on a person into the actual structure of the personality, taking account of its specifics, allows the subject to demonstrate relative stability in relation to the contradictory impacts of the outside world, to retain its own orientation in interaction. Considering that "experienced" knowledge, as a result of experience, is included in the sphere of the personality, the certain stability of the age specifics of the child's personality with respect to his intellectual powers becomes clearer. It may be assumed that knowledge gained not from experience does not have a profound effect on the structure of the personality.

Unfortunately, it is still quite common to ignore the age-

group basis of the child's specifics and to derive them directly from the influence of external circumstances.

Some authors believe that, if children are told more about personality traits and self-education, they will become aware of their personality and get involved in the self-education process at an earlier age. Even such a traditional specific of adolescence as the striving for independence is often explained merely in terms of education. Moreover, the arguments given proceed from the following: the adolescent's increased powers are unjustifiably limited by the school and the family, hence his striving for independence, his desire to emphasise his "maturity" and independence, and all sorts of difficulties at this transitional age. The conclusion is that the psychological specifics of adolescence are determined by shortcomings in education, by adults not allowing the adolescent the necessary independence. In reality, however, the striving for independence does not dissapear even when the adolescent is allowed considerable scope for manifesting it.

The adolescent suffers dissatisfaction in his striving for independence under different education conditions. "Maximalism of independence" is characteristic of the psychological specifics of adolescence proper.

If during the organisation of self-education, account is taken of the specifics of adolescence and youth, this will help make self-education an effective means for developing the personality mentally and physically.

* * *

The role of self-education naturally increases in adults, for the potential possibilities of the personality are extremely great, and the formed world outlook, self-awareness and will make it possible to develop one's abilities more successfully, systematically and comprehensively. This is especially true since life does not stand still and society is developing scientifically and technically. Anyone who does not engage in self-education, voluntarily or not, lags behind the demands of the times. In contrast, the achievement of major successes in the scientific and technical, artistic and other spheres of human activity has become unimaginable without hard work by the individual to improve his per-

sonality. This is shown convincingly by the self-education of outstanding thinkers, people with artistic talents, cosmonauts and people in the most diverse professions.

For a lot of people inner self-improvement sometimes takes place, of course, almost unnoticed by the person himself; he develops his positive characteristics and overcomes his shortcomings without really realising that he is engaging in self-education.

Today, of course, there are many examples of people in different professions engaging in self-education quite consciously and deliberately. The well-known Soviet test-pilot Mikhail Gromov (1899-1984) said, for example, that, by means of self-education, a high degree of perfection may be achieved in one's personal qualities and the new habits and skills required for the chosen profession may be acquired. And this is indeed true. Anyone who works on himself will score major successes. The pilot, for example, has to develop, by means of self-education, such qualities as the ability to control himself in any situation, quick reactions and so on.

The eminent Soviet scientist Aksel Berg (1843-1979) focused serious attention on questions of self-education. His idea was that real character cannot be formed without effort; moreover, constant self-observation and self-accountability are required, and there may even be temporary falls, trips and other fluctuations, which, in fact, reveals the dialectical character of the process of self-education.

It should be stressed that, regardless of the level of awareness of self-education, it is usually closely linked with people's work activities. Thus, for example, education of will-power, of an organised, persistent character capable of self-control is carried out in the process of fulfilling production tasks, and mental self-development by means of self-education and external study in specialised secondary and higher educational institutions, of which there are quite a few in the USSR, this also requiring considerable persistence and tenacity. Scientists and the scientific and technical intelligentsia stress, in education of the will, the organisation and rational planning of one's daily routine, the mobilisation of one's forces for a systematic creative search. It is natural for scientific work to presuppose vigorous mental activity and, in turn, to further the development of intellectual abilities.

The human personality is, of course, unique, but, at the same time, the following question is also justified: what does the self-education of people in different professions have in common? The main thing, of course, is the person's attitude to labour, the manifestation of the person, as an individual, in his work.

In the history of science, the classic example of industriousness is provided by the talented American scientist and experimenter Thomas Alva Edison. His devotion to the idea and extraordinary capacity for work made him an outstanding scientist. Right up to his death (at the age of 84), Edison worked intensively, often for 18-20 hours a day.

The secret of Edison's great scientific discoveries was work, persistence and more work. In order to find a suitable material for the filament of an electric light-bulb, Edison and his assistants carried out 6,000 experiments, filling 200 notebooks! And he found what he wanted. It turned out that carbonised bamboo fibres radiate evenly for a long time...

The great scientist Edison was fully justified in saying that genius consists of 1 per cent inspiration and 99 per cent hard work.

In the self-education of scholars, when the person plans his own work regime largely independently, its constant observance assumes particular importance. The great Russian scientist Ivan Pavlov is known to have been very punctual and kept strictly to his timetable. Even meetings with the friends of the founder of geochemistry, Vladimir Vernadsky (1863-1945), were not allowed to disrupt what he had found to be the most productive sequence of work and rest. Sometimes things took a curious turn. No matter how interesting was his guests' conversation, Vernadsky would play with his watch-chain on his waistcoat, then pull out the watch and, getting up, say with a soft smile: "Excuse me, I'm off to sleep: its ten o'clock, time for bed."

And he left. He got up at exactly six o'clock, never changing anything in his established daily routine which was devoted entirely to science.

He left home and came back at exactly the same time every day, as regular as clockwork. Old ladies living nearby would often check their old-fashioned clocks by him. Among Vernadsky's scientist friends, his constant devotion to high-level thinking seemed natural and understandable.

An orientation on getting to know things, on creative intellectual activity in self-education was exemplified very clearly in the life and work of Alexander Vinogradov (1895-1975), scientist in many fields, who was Vice-President of the USSR Academy of Sciences. His scientific interests extended from botanics to astronomy. On one occasion, some people who had known Vinogradov well for a long time were asked what did *not* interest him. No one could give an answer. He was interested in everything. The work of acquiring knowledge was, for him, naturally a joy in itself.

This is how he organised his life. Every minute of his day was allotted for a particular purpose. He had ascetic habits, sleeping no more than six hours a night. He never took holidays, following the axiom that a change is as good as a rest. Vinogradov was constantly thinking: whether at a scientific conference or a banquet, he would immediately write his ideas down, even on an invitation card that happened to be to hand. It is difficult to decide exactly what he was born with and what he trained in himself. One thing, though, is clear: he developed his initial capabilities to the maximum.

The life of the outstanding Soviet biologist Nikolai Vavilov (1887-1943) is probably a good example of extremely high and constant capacity for work.

Vavilov never stopped working. He was the organiser and first President of the USSR Academy of Agricultural Sciences, the director of the Institute of Plant-Growing and the Institute of Genetics, the president of the geographical society, the editor-in-chief of *Works in Applied Botanics, Genetics and Selection,* as well as of many collectively-written, sometimes multivolumed collections. Vavilov took all his duties seriously, showing an interest in all the details; particularly, as editor, he often reworked articles, together with their authors, several times, to make them brief and extremely clear and precise in their sense.

It would seem that Vavilov left himself no time to write articles and monographs, but in fact he wrote a large number of major fundamental works, running to over 16,000 pages. Vavilov worked 18 to 20 hours a day and never took a holiday in his life. Yet he was never heard to complain of being tired or to have underslept. During the day, he found time to answer a couple of dozen important business letters, hold two or three

conferences, work in the laboratory and on experimental plots, and then to make a comprehensive report—and all this with joy, ease and interest.

As we can see, regardless of the field of the work and the scientist's personality, each of them is characterised by extreme persistence in his work, an ability to make rational use of time for scientific research. And it should be stressed that scientists share this feature, irrespective of the level of their natural talents. Continuing, as it were, Edison's idea, the well-known Soviet physicist Academician Alexander Mints modestly noted on his 70th birthday: "To be quite honest, I must admit that the natural talents of the hero of this anniversary were hardly above average. His knowledge never sufficed. He worked hard all his life, making up for his lack of talents with persistent hard work."

The outstanding results achieved by production workers undoubtedly depend, no less than in science, on the maximum development of human capabilities, connected with constant intensive work to improve and raise one's qualifications.

By means of self-education, Soviet workers develop and improve their intellectual abilities.

Self-education is based on labour, the direction of which naturally depends on the person's profession. At the same time, age specifics also tell on the nature of self-education.

It should be noted that, during special experiments, an active striving towards comprehensive development of the personality, intellectual and aesthetic abilities, was observed among younger people. (The level of development, education, nature of activity and the like naturally played a major role.) The 20s and 30s are evidently a time of daring and a sort of maximalism in self-education. A marvellous example of a comprehensive programme for self-education was provided by one of the active participants in the Great October Socialist Revolution, Sergei Lazo, who, as a student, defined the tasks of his self-education as follows:

... At the forefront stands a profound and fundamental study of mathematics, mechanics, astronomy, physics and chemistry, the natural sciences and the humanities.

... Two hours of physical work a day, training of the body by means of gymnastics, washing with cold water, 7-8 hours of proper sleep.

Thus, the accumulation of knowledge, energy and inner calm. Go to lectures, theatres, museums, art galleries, libraries.

Take part in the social life of the university, always attend conferences...

Try to travel as much as possible.

Sport: rowing, cycling, swimming, skiing and so on.

The possibilities for such breadth of self-education in youth should not, of course, in principle be exaggerated. The setting of many tasks for self-education does not mean they will be fulfilled, especially since young people, under the impact of various interests and not always being capable of assessing their strength realistically, are sometimes inconsistent or lack purpose enough in their work on themselves. Moreover, youthful maximalism, in a number of cases, far from furthering comprehensive self-education, may, on the contrary, mean its concentration on "favourite" tasks. This does not, though, apply to the subject of example; Sergei Lazo fought heroically during the Civil War, displaying extreme fortitude, courage, and conviction, and died before reaching the age of 26.

Even so, in assessing a certain one-sidedness in the tasks of self-education, account must be taken of the possibility of it exerting a negative impact on the development of the personality and its positive potential. After all, the positive striving to develop a given aspect of the personality may further the achievement of extremely valuable results in a person's activities. Moreover, an orientation on the improvement of specific qualities and abilities might be connected with the fact that the other aspects of the personality are already well formed. In addition, considering that the personality is an integral concept, the very process of the formation of one valuable characteristic in a person may reflect positively on his other personality traits, too; thus, let us say, systematic improvement of mental abilities also furthers the strengthening of the will.

A convincing example of a favourable influence exerted by purposefulness in the development of one's intellectual abilities on the formation of an outstanding creative individual, with a strong-willed character, is provided by the life and work of Otto Schmidt (1891-1956), a well-known Soviet scientist. Schmidt was one of those people who possess a "universal mind". He had a profound knowledge of geophysics, astronomy, geography and

physics. The depth of his erudition was a result of hard work throughout his life. Concerning his scientific plans, Schmidt wrote in his diary: "I sat down to calculate, after all, I was a mathematician. I worked out that I would need a thousand years to achieve what I had planned. You can't live a thousand years and it's impossible to do everything. I began the painful process of crossing out everything that, though interesting and necessary, could be done without. Only the things that I simply couldn't imagine the way to science without were left. I calculated again—still enough for 250 years."

Schmidt came to the conclusion that he would have to increase the amount of time spent studying, and it was sleep that had to suffer: in his youth the loss of about a third of one's life devoted to sleep seemed unjustified and Schmidt tried to cut his sleep down to 5-6 hours. Being an outstanding personality, Schmidt embodied his self-education principles in practice and made a number of scientific discoveries.

And yet, in our opinion, the aim of self-education must be the development of all of a person's positive qualities. This does not, of course, mean to deprive the personality of its uniqueness or the abilities inherent in it alone.

The comprehensive development of the personality is, of course, at the same time the maximum development of a person's greatest abilities. Especially since a person's potential reserves are so great that, in principle, everyone can substantially improve any aspect of his personality.

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Stressing the possibilities for infinite development of world civilisation, Marx noted that its goal was development "of all human powers as such, irrespective of any formerly established scale. Man is not here reproducing himself as any one determined form, but producing himself in all his integrity; he is not striving to remain something finally established, but is in absolute motion of establishment."[1]

[1] Karl Marx, *Grundrisse der Kritik der politischen Ökonomie (Rohentwurf), 1857-1858,* Verlag für fremdsprachige Literatur, Moskau, 1939, S. 387.

For this reason, the possibilities for self-education during the development of society can hardly be confined to previously established scales and standards of human abilities.

In principle, this is shown, too, by the facts of man's extraordinary abilities.

Indeed, if any scientific materialistic explanation can be given of these "exceptions", they may begin to confirm the rule and the "anomaly" may become the norm.

Let us first take a look at certain people with outstanding abilities. Thus, it is known that W. Shereshevsky, a correspondent of a Moscow newspaper, could remember whole books by heart after reading them only once and, several years later, could tell you on which page particular things were written. Many years of observation of this phenomenon were described in the book by the well-known Soviet psychologist Alexander Luria (1902-1977) *A Small Book about a Big Memory*. The outstanding Russian chess player Alekhine could play 30 to 40 games at a time by memory, in his head. There are many such examples of extraordinary memories. And the main thing is that they can be explained scientifically.

Information is recorded by 9-12 billion brain cells. Each cell may have several thousand contact branches in which information is also stored.

Thus, we can see that the material substance of each person's brain is, in principle, sufficient for extraordinary feats of memory. The point is to discover why these possibilities are not used and how to make use of them. Before answering this question, however, let us continue considering the specific possibilities of the individual.

It is sometimes said in joke that a person can do several things at once: read, write and listen, just like Julius Caesar. And there is an element of truth in this. People really are capable of it: this is often explained in terms of automatism, highly developed skills, say of writing, reading and so on. For example, a good typist can type while, at the same time, composing the text or conversing with other people.

Even so, automatism of action is evidently not a complete explanation, for other abilities also need to be used.

It is usually believed that each of the two cerebral hemispheres operates in turn. The physiologist V. V. Yefimov asserts that

they may be made to work more actively. In his research, he shows that both of the hemispheres can work at the same time, making human activity more effective. And this can be achieved through training. Amazing results are, for instance, achieved through special training in yoga.

For our analysis, it is important to stress that there are no grounds for rejecting man's many amazing abilities, but account should be taken of the fact that they are fettered by sorts of brakes, protective mechanisms, within the human organism.

It is interesting that the effect of hypnosis, by switching off these "brakes", shows quite clearly man's exceptional possibilities. The following example may be cited from the book *The Word, as a Physiological and Curative Factor,* by the well-known Soviet psychologist K. I. Platonov. Hypnotized people lifted weights of 10 kg. to a height of 0.5 m. When they became tired, as indicated by a special apparatus, it was suggested to them that the weight had been reduced by half and their capacity to work returned immediately. When, after lifting the weight several more times, exhaustion set in once more, they were again told that it had been reduced by half. And so on, several times in succession. Their capacity to work was restored over and over again. The time at last came when such suggestion no longer had any effect, but as soon as the idea was implanted that the weight had been reduced to a quarter, the capacity to work grew sharply once more, and so on several times. Finally, this suggestion also lost its effectiveness and the subjects were told that the weight had been reduced to a tenth. Again their ability to lift it returned. Then to a twentieth—again it returned. At this point the experiment was broken off.

This is no chance result. Account must be taken of the fact that, if the braking mechanisms are released too often and the physical burden on a person increased too much, this may cause injury to the organism.

In addition to the braking protective mechanisms, man's potential powers are also limited by behaviour stereotypes, his being accustomed to a particular mode and way of life, when a person does not use his powers to the full. Pavlov himself pointed out how difficult it is to overcome stereotypes. "The stereotype," he wrote, "becomes stagnant, often difficult to change,

difficult for the new situation and new stimuli to overcome."[1] When a person falls under the power of habit and the monotony of daily routine, he can become used to the situation that has taken shape.

There are sufficient grounds, however, for an optimistic assessment of the ability to reveal the potential of human powers. Above all, part of the excess influence of braking mechanisms, the effect of which may be hypertrophied by a weak will, fear, or depression, may be removed by self-suggestion and self-command, as well as other means of self-influence. So the development of the will and other means of self-influence constitutes a major way of self-education.

The flexibility of the nervous system is, of course, merely a material condition for further self-improvement, the mental basis of which is a person's actual attitude to the level of development of his personality and his striving for further change.

Realisation of the great social meaning of working on oneself as a condition for the moulding of a comprehensively developed personality raises the role of self-education substantially in a person's eyes.

Although not everyone can attain outstanding results by means of self-education, a person's potential powers are great enough.

The deaf and blind mute Olga Skorokhodova (b. 1914) managed, by hard and purposeful work, to achieve things that healthy people, with incomparably greater possibilities, could not. With the help of psychologists specialising in the education of deaf and blind mutes, Olga "read" the classics, studied philosophy, pedagogics and psychology. She not only graduated from Moscow University, but also continued with scientific work and wrote a thesis on psychology. Olga Skorokhodova wrote an interesting book telling how a person who cannot see, hear or speak is able to get to know about the world by revealing the reserves of his personality, improving his sense of touch and smell, and most important, developing his thinking abilities. Olga Skorokhodova is not a single exception; the psychology faculty of Moscow University has already had several deaf and blind mutes as students.

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[1] I. P. Pavlov, *Complete Works* in six volumes, Vol. 3, Book 2, p. 333.

Unfortunately, among completely healthy people termed "average", who have not revealed any special talents and abilities, there are many who not only do not strive to engage in self-education, but have an obviously negative attitude towards it. This is because the mediocre person attempts to assert himself among people by means of a self-satisfied stand, exaggeration of the mistakes of others and denial of his own shortcomings.

Self-satisfaction is a sign of narrow-mindedness, a barrier to the personality's development, the greatest obstacle to self-education. Self-satisfaction usually typifies the absence of self-criticism and leads to self-deception.

Even so, the halt in the development of self-satisfied people does not mean that each person cannot in principle, by means of systematic work on self-education, achieve significant results in the moulding of his personality.

There is no reason to agree with the tendency to consider a person's abilities, especially his mental potential as limited. For instance, the well-known British professor and testologist Hans Jurgen Eysenck asserts that a person receives 80 per cent of his intellect by birth, and that external impacts and his own efforts can only add very little to this.

Let us note the shortcomings of the tests used by testologists to determine people's talents. No account is taken of the subjects' training, the extent of their knowledge, general cultural level and the like. So people with roughly equal abilities may solve the test tasks in completely different ways.

Inborn inclinations should not, of course, be denied either, especially on the plane of special, artistic abilities. Let us recall Marx's remark that, under communism, not everyone can be a Raphael, but that "anyone in whom there is a potential Raphael should be able to develop without hindrance".[1]

For this reason, while emphasising the substantial possibilities of self-education, a person's inclinations should not be ignored. At first glance, the idea that every child could develop any talent seems attractive. This, however, would mean that

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[1] Karl Marx, Frederick Engels, "The German Ideology", in: K. Marx, F. Engels, *Collected Works*, Vol. 5, Progress Publishers, Moscow, 1976, p. 393.

adults would cease to be interested in the child's actual inclinations and possibilities, or to take account of his individual abilities, and start imposing their own wishes on him, however unrealistic and against his nature they may prove to be. Parents would seem to be well motivated, but in essence they would suppress the individuality of their child.

This does not mean, of course, that each child cannot be taught the skills of a given activity. In the development of abilities and talents, however, there are fundamental differences.

Even so, the role of special gifts should not be exaggerated when it is a matter of achieving usual, good results. This is particularly true with respect to the formation of moral principles, in which the social environment and external conditions assume decisive significance. Thus, the Soviet scientist Luria observed identical twins over long periods of time, i.e., people identical in nature, genetic make-up, blood, and so on, and came to the conclusion that the formation and development of their morality was determined totally by circumstances of life. In one family, for example, among those studied, one of the twins became seriously ill. The attitude of the parents towards him changed and they began to indulge him and make unnecessary concessions. The parents continued to give in to the boy's whims even when he recovered. They made sure that he was treated as a sick child at school, too, and he was relieved of difficult tasks. The mother and father did everything possible to take care of the boy as an adolescent and then as a youth. As a result, he grew up weak of character, irresponsible, and egoistic; meanwhile, his brother, who was given extra duties and who constantly helped his parents, took part in general work, was involved in socially useful work, became a person with a conscientious attitude to social duties and a considerate son, a person with a strong and resolute character.

Thus, when speaking about self-education, it is important to remember that tests do not reveal the wealth of a person's intellectual world or measure his abilities, especially since these abilities may manifest themselves in different ways in different people and at different ages. A person's creative talent may, for example, emerge when he reaches young adulthood or even maturity, so this should encourage people to develop their abilities even if they did not display any particular talents as a child.

Let us recall the great scientist Albert Einstein, who showed no special ability in physics or mathematics as a child and was even below average as a pupil.

Another outstanding scientist, Isaac Newton, was also behind in physics at school. As a child, the inventor James Watt was considered virtually mentally backward. Charles Darwin's father thought his child to be ungifted. But Darwin's hard work for more than twenty years, which was reflected in his book *On the Origin of the Species by Means of Natural Selection* brought him world renown and enriched science. The great Russian writer Nikolai Gogol (1809-1852) wrote mediocre essays as a child. The well-known Russian writer Ivan Goncharov (1812-1891) began writing fiction after the age of forty. The list of such examples could be continued.

It is important to clarify the main point: the revelation of a person's abilities is possible in both youth and maturity, provided there is a striving towards self-education and, most important, hard work on improving the personality.

Chapter 2

THE ROLE OF SELF-REGULATION AND SELF-EDUCATION IN THE DEVELOPMENT OF THE PERSONALITY

Self-regulation includes both the processes of unaware self-regulation and those of conscious self-management.

An unconscious programme and the presence of control mechanisms for accomplishing it constitute a self-regulation mechanism that man shares with animals. Man, however, is capable of regulating the implementation of this programme by a conscious effort of will. While an animal represents, as it were, a unity with its vital activity, without distinguishing itself from its actions, a person subordinates his vital activity to his will and consciousness, so it is important for means of activating the will to be included in a person's general self-regulation mechanism.

The means of self-regulation used consciously by a person with the purpose of managing the inner processes of his organism become means of self-influence, and the latter, applied in order to change the personality—means of self-education. In the sphere of the consciousness, a differentiation takes place of the functions of purpose. The presumption of purpose is singled out as an independent component of human vital activity. As Marx noted, "a spider conducts operations that resemble those of a weaver, and a bee puts to shame many an architect in the construction of her cells. But what distinguishes the worst architect from the best of bees is this, that the architect raises his structure in imagination before he erects it in reality. At the end of every labour-process, we get a result that already existed in the imagination of the labourer at its commencement. He not only effects a change of form in the material on which he works, but he also realises a purpose of his own. . ."[1]

[1] Karl Marx, *Capital,* Vol. I, Progress Publishers, Moscow, 1974, p. 174.

At the level of self-consciousness, purposefulness is expressed in the elaboration of a work programme on himself, which becomes a major means of self-education. In addition, the function of purpose is to have the outlined plan implemented, hence the obligations (promises) to oneself to achieve the set goals.

In accordance with this, the following should be identified as the chief means of self-education: the elaboration of a programme, self-control over the realisation of the given programme and self-command or self-suggestion, stimulating the will to improve the personality.

* * *

Hannes Lindemann, the psychiatrist and outstanding traveller, who was the first person ever to cross the Atlantic alone in a single-place rubber boat, taking 72 days in the attempt, describes the role of goal-setting in management of oneself quite picturesquely:

"The first step towards success in any matter is the orientation itself on success, the absolute confidence that the goal will be achieved. For this reason, the first formula of the goal was that of a positive result to my undertaking: 'I'll succeed!'

"This formula became so firmly entrenched in me, in my consciousness and subconsciousness, in the most remote parts of my brain, that there was simply no place left for any other version of the outcome apart from success. Victory came because it could not fail to do so. 'Even if you capsize ten times,' I told myself at the start, 'you will still manage and reach your goal.' This confidence in ultimate victory helped me deal with extreme difficulties and saved my life at critical moments, when the boat capsized twice and I was on the verge of death."[1]

Moreover, it is particularly interesting that the orientation set on the level of the conscious in Lindemann's experiment proved to be fixed in the subconscious, too. "The decisive thing for my journey," Lindemann writes, "was the formula 'Course west', i.e., movement strictly to the west. Any divergence from this course would have meant inevitable death. So, in response

[1] Hannes Lindemann, *Uberleben im Stress. Autogenes Training,* Berlin, 1976, pp. 12, 15, 16.

to even the slightest disobedience on the part of the boat, the warning 'Course west!' was to sound immediately within me. And this formula, fixed to full automatism, woke me from delirium caused by lack of sleep, just as reliably as the enormous cold waves rolling across the boat.

"During the last 18 days there was a sharp, sometimes stormy trade-wind blowing, making me constantly strain myself. The lack of sleep that had accumulated over these days became unbearable. My brain was in a strange and tormenting state between sleep and wakefulness. Even so, surrounded by the wild elements, I often heard how an enormous wave, lifting the boat, hissed only: 'Wessst!' 'Wessst!', repeating the life formula entrenched in my subconscious: 'Course west!' I was often subject to hallucinations, one of which I remember well. In my delirium, I was talking to an African:

" 'Where are we going?'

" 'To my master.'

" 'Where does your master live?'

" 'To the west!'

"The word 'west' woke me immediately, I looked at the compass and adjusted my course. This example shows that the formula of intent can assert itself even through hallucinations—a fact not previously known to psychiatrists."[1]

In the aspect of self-education, the question naturally arises as to the work a person must carry out in order to accomplish such successful goal orientation.

It is not superfluous to recall at this point that the involuntary process of self-regulation, elaboration and control of a programme of vital activity for the human organism presupposes active absorption and seeking by the subject of information about the surrounding reality, about himself, about the course of the realisation of the self-regulation process. The need for information is an important requirement for man, and its satisfaction is furthered by the orientation reflex, which is of universal significance for the subject's interaction with the environment.

An orientation in reality on a high level of consciousness may be achieved deliberately, for the purpose of more effective self-

[1] Hannes Lindemann, *Op. cit.*, p. 14.

regulation, interaction with the environment, and so on, and thus assume the nature of self-information. Self-information promotes the construction of a programme of self-education suited to the person's goals.

Information about social requirements and the state of one's personality is not, however, on its own enough for the formation of a self-education programme.

The emergence of a self-education programme may be imagined as a consequence of a person's understanding of the lack of correspondence between his behaviour or individual acts and demands of the environment. On this basis, one feels obliged to oneself to implement a certain programme of self-education. Such obligations to the self initially take the form of promises to oneself to carry out (or not carry out) specific acts. Later, as the level of awareness of the need for self-education rises, when it becomes clear that individual, separate acts will not help one mould the desired qualities of character in oneself to overcome one's shortcomings, the person begins to elaborate personal rules for self-education, outline the main principles for his behaviour, a system of actions under different conditions.

The diaries of outstanding people in the past contain information on the role of personal rules in the process of self-education. For example, the well-known Russian educationalist of the 19th century, Konstantin Ushinsky, believed that the following rules that he had worked out helped him in many situations in his life: "1. Complete calm, at least on the surface. 2. Uprightness in word and deed. 3. Consideration of actions. 4. Resoluteness. 5. Say not a word about yourself unless necessary. 6. Do not waste time: do what you want, not what simply happens... 7. Account to yourself conscientiously every evening for your actions 8. Never show off about anything that was, is or will be."[1]

The great Russian writer Leo Tolstoy attached particular importance to the following rules for self-education: "Always carry out what you intend, and do so in spite of everything. What you do, do well... Never look anything up in a book; if you have forgotten it, try to remember it yourself... Always make

[1] K. D. Ushinsky, *Collected Works* in eleven volumes, Vol. II, Moscow, Leningrad, 1948, p. 27 (in Russian).

your mind operate at full power."[1] Moreover, on the basis of his experience, Tolstoy stressed the significance of an orientation of personal rules on self-improvement and the fulfilment of practical tasks.

The realisation of the need for self-education, the striving to master this process, to make it more effective, prompt people to write down and analyse their duties and personal rules. Many of the young men and girls we studied, who were engaged in self-education, pointed out the importance of doing this. "Unless I write down my promises to myself, all my good intentions scatter and melt in my head and, more important, are forgotten" (Tatyana S., 16); "There is a Russian proverb to the effect that even an axe cannot erase something written with a pen. Want or not, you've got to do it" (Nikolai S., 19); "I sort of made my self-education official when I wrote down my personal rules in my diary" (Igor V., 20).

The most diverse forms were used for writing down duties to oneself: personal diaries and notebooks, and simply sheets of paper. Only a relatively small group kept diaries, about 6 per cent of the total number studied.

In connection with this, the question naturally arises as to whether keeping a diary is a necessary condition for effective self-education.

A number of authors note the positive role of a diary in self-education. Analysis of these materials prompts the conclusion that a diary: 1) helps a person fix his attention on the main events in his life and consider their significance; 2) facilitates analysis of one's own behaviour and personal qualities, which helps draw up a self-education programme.

The outstanding Russian thinkers Nikolai Dobrolyubov, (1836-1861), Nikolai Chernyshevsky (1828-1889) and others pointed out the positive role of a diary in self-education. Leo Tolstoy wrote: now, "when I engage in the development of my abilities, I shall be able to judge from the diary of the course of this development". This did, indeed, help him determine the main trends in his work on himself. "Most important for me in life is to reform my three main defects: lack of character,

[1] L. N. Tolstoy, *Collected Works* in ninety volumes, Vol. 46, Moscow, Leningrad, 1934, p. 15 (in Russian).

shortness of temper, and laziness."[1] Thanks to his diary, Tolstoy traces the course of his work on himself, and sets himself specific self-education tasks.

The Soviet writer Dmitri Furmanov (1891-1926) also indicates the tremendous opportunities provided by a diary in self-education. For sixteen years, Furmanov kept a regular diary, which became a sort of autobiography of his inner world, a manuscript of the intellectual development not only of the writer himself, but also of other people of his generation. This was the material that provided the basis for his literary works.

At the same time, some people believe that a diary is useless or even detrimental in self-education. According to the well-known 19th-century German educationalist Friedrich Adolf Diesterweg, a diary hampers vigorous, healthy activity. Indeed, sometimes a diary does distract a person from work on transforming his personality, but this does not provide grounds for completely rejecting the useful role of a diary in self-education.

Positive results may be achieved without keeping a diary, of course, but in two cases, different in nature, diaries are an essential condition for successful implementation of a self-education programme.

First, when a person has not mastered the method of verbal self-analysis, in order to determine his self-education tasks and the course of their realisation without the special support of the written word, and second, when a person is generally inclined to write down his thoughts.

The effectiveness of a self-education programme depends, of course, on external conditions and, to a considerable extent, on the nature of education in general, where children are concerned. This becomes obvious considering that obligations to oneself are a natural consequence of a person's obligations to the given society, though obligations to oneself are undoubtedly fulfilled when the individual is convinced of the need for them.

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Obligations assumed to oneself can only be realised when the individual controls his self-education activities, otherwise his

[1] L. N. Tolstoy, *Op. cit.*, Vol. 47, Moscow, 1937, p. 22.

wishes and actual behaviour diverge sharply, with the result that some adolescents and young adults become disillusioned in the possibilities of self-education.

As a means of self-education, self-control develops on the basis of a person's ability to control his various activities, to carry out self-regulation and self-influence. For this reason, the determination of the specifics of self-control as a means of self-education requires primarily that it be studied as a personality trait.

Otherwise, self-control is interpreted broadly or is identified with given abilities and skills as substitutes for self-control, a personality trait. This is sometimes furthered by the establishment of a formal link between the result of an activity and self-control, the latter being assessed according to the quality of the output, whether the pupil solved the given arithmetic problem or a particular part correctly, and so on.

In this case, the fact is being ignored that self-control establishes a divergence of a person's activities from his personal image, and if this conflicts with the objectively valuable image, then even carefully controlled actions may not produce a good result. Thus, a pupil who carefully controls the fulfilment of all the operations indicated in an incorrect programme for making a part, will nevertheless produce poor-quality output. Account should be taken of the fact that a person with a well developed sense of self-control, but lacking knowledge and skills, may fulfil difficult tasks badly. In contrast, a person with less developed self-control, but a good knowledge of his trade, may produce more valuable output. The development of the ability for self-control will, of course, alongside other necessary conditions make it easier for a person to master a given activity, but this does not mean that the process of its regulation and self-control are one and the same thing.

All this testifies that there are no grounds for identifying self-control with self-regulation, the former being only one function of the latter.

Thus, the function of self-control consists in discovering any divergence of the programme being realised from the set one and introducing corresponding adjustments into the activity plan.

It is important to differentiate between unintentional (invol-

untary) self-control as a means of self-regulation of the organism and intentional (voluntary) self-control, determined by the consciously set goal: to make sure the programme for one's activities is realised precisely, i.e., self-control as a means of self-influence.

Involuntary self-control as a quality inherent in the human organism functions automatically. This largely explains why pupils at the level of unintentional control of their study and labour activities, in the event of different sorts of distraction, involuntarily switch to play, considering extraneous objects, and the like.

For this reason, involuntary self-control, little amenable to conscious regulation, does not play such an important role in self-education as voluntary self-control does.

Intentional self-control, determined by a special goal, that of keeping a watch over the realisation of ones tasks, obstructs any involuntary change of activities. Pupils who consciously set themselves the goal of implementing a given programme of activities and not being distracted by extraneous occupations, are capable of fulfilling their studies and socially useful duties more consistently. An intentional goal of verifying a specific programme of activities promotes better self-control.

At first glance this assertion seems, however, to be contradicted by well-known cases of the disruption by intentional self-control of the natural course of the automated process on the level of skills. Such cases cannot, however, be considered as adequate grounds for asserting that intentional self-control inevitably disrupts automatism of action: for example, the sportsman's intentional goal of fulfilling the programme of an automatised process (gymnastic exercises, and the like) more precisely often does not disrupt these actions but, on the contrary, furthers their more precise realisation.

An attempt at self-control of one's usual automatised action by means of conscious analysis of the individual operations involved in it inevitably leads to deautomatisation of the action, and yet, on another plane, self-control of an automatised action is carried out with the help of logical analysis, too. Thus, the sportsman, when running a given distance, does not, of course, consider how he should move his legs; but he does assess how far he still has to go, the time he has already taken and, in this

indirect, mediated way, controls the automatised process of running and introduces adjustments into it.

Not being able, on the level of logical analysis, to control the actual process of automatised action directly, a person controls this process in a mediated way, through its indirect results.

In the process of self-education, voluntary self-control assumes particular significance. This is connected with the specifics of the realisation of a self-education programme, which depends on studies, socially useful activities, sports, and play (where children are concerned) and on how they correspond to the goals of self-education.

The first way to implement the self-education programme is to subordinate other forms of activity to the idea of self-education and thus transform them into a self-education activity. In this way, self-control promotes a stabilisation of self-education activities. Let us consider this proposition carefully. Assume that a young man is attempting to cultivate discipline and resoluteness in himself. To this end, he conscientiously does his homework, does the most difficult jobs around the house, begins training at a gym, and the like, i.e., includes actions connected with study, sport and labour in his self-education activities and subordinates them to these activities. Under these conditions, self-control furthers the adjustment of activities to the motives of self-education. Cognitive, play and other motives, specific to these types of activity, may function too, of course, under the given conditions of the realisation of the self-education programme, but now act as additional stimuli. Owing to their own logic, however, they will tend to evolve into self-contained ones.

In order to study self-control as a means of self-education, an experiment was carried out to reveal its influence on the precision and speed with which numbers were calculated. As the indicator of the stability of the function of self-control, and of a rise in this was taken the stability of pupils' activity on self-educating attention in spite of disturbances, no involuntary switch being made to another activity. The experiment was similar to the one described earlier, but the pupils were of a different age group and the tasks more extensive.

Thirty young people unconsciously engaged in self-education took part in the experiment. In each series of the experiment, the

subjects were asked to calculate 200 pairs of figures. If the first figure of the pair was smaller than the second, they were to add them together, if bigger—subtract. The pairs were changed in each consecutive series of the experiment. The pupils calculated the figures of each series twice: first without disturbance, and then against a background of disturbances. The disturbances were created by tape-recordings of random figures up to ten read aloud. Any change in precision or speed of calculation of the figures when the recordings were being played characterised the degree of the individual's concentration. Each subsequent series of experiments was carried out at the same time on the next day.

In the first series the aim was to obtain control data. The senior pupils were told to carry out the task, without any connection between it and self-education being indicated. The task was argumented by the need to obtain data on the precision and speed of the calculation of figures for scientific purposes. In the second series, the aim was to obtain data on involuntary self-control in the process of unconscious self-education. In order to include the calculation of figures in the unconscious activities of self-education, the pupils were told to carry out the task to test their powers of concentration, i.e., some information was thus provided on the link between the precision and speed at which the figures were calculated and their attentiveness. In the third series, the aim was to obtain data on voluntary self-control in the process of conscious self-education. In order to include the calculation of figures in the process of conscious self-education, the pupils were given specific information on self-education, on self-control as a means of self-education; it was explained that efforts to concentrate during the calculation of the figures could be used for the purpose of self-education.

The insignificant increase in attentiveness against disturbances during the process of unconscious self-education—by an average of 2.5 per cent—testifies to the weak stabilisation of activities carried out with the help of unintentional self-control. This can, to some extent, be used to explain the instability of children's self-education, the divergence between their self-education intentions and their actual behaviour. The substantial rise in resistance to disturbances during conscious self-education—by 19.5 per cent—testifies to a substantial stabilisation of activities

carried out with the help of intentional self-control, and to greater opportunities provided by it as a means of self-education.

Other data were obtained in the experiment without disturbances. The average 14 per cent increase in the precision and speed of calculation when this activity was included in the process of unconscious self-education testifies to a fundamental development of the functions of involuntary self-control—the adjustment of actions. At the same time, the 23 per cent increase in the precision and speed of calculation when the subjects were informed of conscious self-education indicates an even greater development of the given function in the presence of intentional self-control.

It might be presumed that the increase in precision and speed demonstrated in the second and third series of the experiment was affected by the training of the subjects in the previous series. In order to test this, a new group of pupils was selected with the same quantitative and age make-up and average indicators for the calculation of figures as the first group. The new group calculated the same figures as the first one, but without the motive of self-education being included into their activity. The second group's precision and speed throughout experiment remained at one and the same level. Consequently, previous training did not affect the results of the subjects' activities.

Thus, there are grounds for asserting that the experimental data obtained stress the particularly important role of the individual's intentional control at the initial stage in the realisation of the self-education programme.

The next stage is the realisation of the self-education programme with various types of activity (study, sports and others) retaining their own sense-forming motives, but now with the accompanying motive of self-education. In the given situation, self-control is carried out in two directions: over both specific types of actual activity and the self-education programme.

In comparison with the first stage in the realisation of the second stage of self-education, the role of involuntary self-control drops, while that of voluntary grows. This is connected with the fact that in the structure of perception, which is selective in character in accordance with the individual's interests, it is the specific type of activity that is controlled involuntarily and

not the self-education programme as a whole. Thus, a thirteen-year-old boy, who had promised himself the previous day to be polite when playing football, perceives information primarily about this play activity. For a period of time this activity conceals other phenomena from him and, not controlling his self-education programme, he does highly emotional things that he later regrets. Under these conditions, involuntary self-control with the use of logical analysis is episodic and delayed, mediated by the rationalisation of his activities (as a result of reproof from adults and conflict situations that help him realise his self-education obligations, and so on).

As the level of awareness of self-education rises, new opportunities appear for self-control. By putting forward the goal of realising a self-education programme, the pupil may subject its realisation to intentional control in other forms of activity. Another, somewhat older adolescent, for instance, often displayed a lack of self-control under the influence of his emotions, especially in sports, and was sometimes even rude. Having decided to refrain from such behaviour in the future, he wrote in his diary: "I promise to become a polite person, and foster patience and will-power in myself." Shortly afterwards, during a volleyball game, he forgot himself and was rude to a friend, but immediately apologised, having remembered his promise, and was not rude again during the game. Several times he was on the point of "blowing up", but managed to control himself.

Particularly favourable conditions for raising the effectiveness of self-control are created when the pupil realises that he is subject to his own control, that he uses self-control to influence himself. This encourages him to account to himself for the purpose of improving his self-control. Here are some typical notes made by adolescents: "I am not good at keeping promises. I have now decided to account to myself for what I have done during the day, in order to control myself better"; "I have introduced the rule that, in the evening, I must consider what I have done, what I forgot to do, what I did well or badly, what conclusions should be drawn, how to correct my mistakes in the future, whether I took care to control what I did today, how I should test and control myself in future"; "In the morning, I promise myself to behave at school throughout the day as I intended while still at home, and to fulfil my rules precisely.

But I get to school and the rules seem to drop into the background. I make one mistake after another, as if my self-control were lagging. Today, again, everything went well at first—I was tactful in an argument with Kolya. But soon overstepped the mark again. Straight away I thought: being rude again, again I'll have a row. But I still couldn't stop myself, sliding down and down a slippery slope, and again started being rude. I couldn't make the necessary adjustment to my behaviour in time."

Particularly interesting in these adolescent statements is the fact that they make not only their programme of activity subject to their control, but also the very process of self-control, noting its shortcomings and outlining ways to improve it. It is interesting that, having realised the shortcomings in their self-control, they begin to train in self-instruction, orienting themselves consciously on a specific type of behaviour. In this sense the following entry is worth noting: "Today, having noticed that I had become uncontrolled and tactless in arguments, I repeated to myself my instruction: to express my opinion with patience, to present logical arguments, not to call people names, not to raise my voice, and I was able to conclude the argument politely and logically." Parents, teachers and friends of this girl began to notice a substantial improvement in her behaviour.

Self-control often assumes the character of a quite complex intellectual activity involving the will, including self-analysis and self-observation. Moreover, the object of the self-observation is the individual deed.

It is interesting to trace this sort of developed self-control in the activities of the well-known Russian scientist Alexander Lyubishchev (1890-1972). From 1916 to 1972, when he died, for 56 years in a row, he wrote down precisely how he spent his time. This was extremely painstaking scientific research and, at the same time, a strict system of time-saving. After all, it is one thing to accuse oneself of being disorganised and being unable to regulate one's life (which many people do every day), but quite another to know all this about oneself down to the last hour and minute. Not many people are capable of such an analysis. Lyubishchev kept a daily account, drew conclusions, which were incredibly detailed, concealing nothing and smoothing over nothing. Thus, he began to cultivate in himself a striving to utilise every minute of the day, any so-called "wasted time"; trav-

el on urban transport, and the like. The utilisation of such time Lyubishchev worked out to the last detail. While commuting, he read small books and studied languages. He learned English, for example, mainly during "wasted time".

The main thing, however, consists in making correct use of working time. For this purpose, he divided time into categories, depending on their creative potential. The first category consisted of his main work (on a book, or research) and continuous background work (reading scientific literature, answering letters, and the like). The second category included reports, lectures, symposia, the reading of fiction, i.e., not actual scientific work. Net active time during the day he took as being ten hours and planned it down to the ten minutes. The whole day is planned, right down to the reading of newspapers.

At the end of each month and each year, he drew up the results and analysed them. At the same time, he was just as scrupulous in planning his work: for the day, the month, year and even five years.

Lyubishchev believed that none of a person's time should be bad, empty or superfluous. Nor is there time for rest: to rest is to change your occupation, like a correct crop rotation in the fields. He saw this as his moral responsibility: a person must be able to account for every hour of his life, not only to himself, but also to society. The Soviet writer Daniil Granin wrote that Lyubishchev learned to cope with the pulsating, slippery "now", not fearing to measure the melting remainder of his life in days and hours. He carefully stretched time out, concentrated it, striving not to drop or lose a crumb. He dealt with it respectfully, as with his daily bread; it would never have occurred to him to kill time. All time was a boon to him. Lyubishchev's lesson is that one can live every minute of the hour and every hour of the day. People with a capacity for work have enough time. They even have more time than other people.

Through his system, Lyubishchev studied and tested how much he could write, read, listen, work and think. This was a ceaseless process of self-cognition. The system of accounting provided him with objective indicators of his state. From day to day, Lyubishchev raised the demands he made on himself. His life was an example of a day-by-day increase in self-control and self-verification.

The lives of certain individuals and special experiments show that intentional use of self-control makes it possible to raise considerably its effectiveness in the implementation of a self-education programme. Self-control as a means of self-education furthers its purposeful improvement, this being a necessary condition for increasing the effectiveness of work on oneself.

Self-control is, however, only a link in the process of the individual's development of the personality and may yield good results only in interaction with other means of self-education.

Sometimes a person realises that he is not fulfilling his self-education programme, although he is making the necessary adjustments to his activity plan and exercising self-control. His efforts towards self-education are not yielding the desired results. This usually happens when difficulties are encountered in the implementation of the self-education programme.

* * *

The reason may have to be sought in the way another method of self-education—self-command—is applied.

It is interesting that the role of self-command for a person finding himself in difficult circumstances is reflected in a number of works of literature, the authors remarking the individual's ability to command himself in the most difficult situations. In *War and Peace*, Leo Tolstoy, for example, often described self-command used by his heroes, especially during military actions: "One cannon-ball after another flew over his head [Andrei Bolkonsky's—*Author*] as he drove up, and he felt a nervous quiver run down his spine. But the very idea that he was afraid picked him up again. 'I must not be afraid,' he thought and slowly slipped from the horse between the guns."[1] Let us recall the Soviet writer Nikolai Ostrovskiy's description of a critical period in the life of Pavel Korchagin, the hero of his novel *How the Steel Was Tempered* when he realised that he was incurably ill, that life was no longer worth living and his hand reached out for his revolver. Then Korchagin gave himself the command: "Put away that gun and never breathe a word of this

[1] L. N. Tolstoy, *Selected Works* in twelve volumes, Vol. 4, Moscow, 1968, p. 246 (in Russian).

to anyone. Learn how to go on living when life becomes intolerable. Make your life useful."[1] Here, the author is showing that self-command in the life of Pavel Korchagin is particularly effective, because the hero is governed by a deep conviction of the need to continue serving society.

The effectiveness of self-command depends on the motives by which the person is governed. Self-command corresponding to his chief goals in life, to his convictions, is the most effective.

Yet self-command certainly does not always further the fulfilment of a self-education programme. A person who has decided to become punctual and organised may, for example, give himself dozens of commands "to wake up earlier", "to stop watching television", and the like, but not fulfil them. This is to some extent connected with the fact that inside himself he argues with his own command: "I'll still have time, I can sleep a little longer", "The hockey match is interesting, business can wait", and so on.

In this case, self-command, which, in an act of will, completes the choice of decision and furthers its realisation, is transferred to the sphere of struggle between motives, when the individual himself begins to seek arguments for not fulfilling it and rejecting efforts of will. A lack of conviction concerning the need to fulfil a self-education programme in general promotes non-subordination to self-command.

This indicates the importance of convincing oneself when carrying out efforts of will by presenting oneself with new arguments for implementing the intended programme. Resort to self-conviction is usually made when the person has, in general, accepted a given recommendation, instruction, rule and so on, but lacks the resoluteness to act accordingly. For this reason, having first agreed to assume certain obligations and having made a preliminary decision (to give up smoking, for example), by means of self-conviction a person can underpin them additionally by adducing various arguments.

Self-conviction in turn may be completed by the adoption of a specific decision and by the self-command to fulfil it: "I must!", "That's it!", "Enough!", and the like. These means are, therefore, largely interlinked in self-education. On the one hand, a

[1] Nikolai Ostrovsky, *How the Steel Was Tempered,* Progress Publishers, Moscow, 1981, p. 404.

self-command is most effective when it is given on the basis of self-conviction; on the other, self-conviction leads to an act of will if it culminates in a self-command.

It should be noted that, while self-command may be effectively used by people of different ages, self-conviction is often of little effect in childhood. There is no need to prove this.

Self-conviction is particularly effective in young adulthood and maturity, owing to the development of thinking and the extended range of activities. In this period, the role of self-command in activating efforts of will also increases, this being promoted both by further development of the will and deeper awareness of the process of self-education.

As the ability to argument and demonstrate improves in the process of thinking, there is a greater inclination towards self-conviction. "When I see that I have no more strength to fulfil my self-obligations," one student writes, "that a treacherous voice is whispering: 'why force yourself, better do what's interesting, fun, etc.,' I begin to convince myself. I recall all the arguments in favour of serious, systematic work on myself; I find new arguments and somehow pull myself together. I cast doubts aside. I stick to my rules."

As already noted, alongside the development of self-conviction, self-command acquires new opportunities. Cases of non-subordination to self-command become significantly rarer and those commands are effective for longer.

A person's realisation of the specifics of his self-education and the deliberate use of self-command help enhance his sense of responsibility for its fulfilment.

In the process of training, self-commands are not only given silently but also aloud, this having much greater effect. The reason is probably that when commands to the self are given aloud, the suggestion function of an external command, as it were from outside, is also switched on to a certain extent.

* * *

Alongside self-command, a major role in self-regulation may be played by self-suggestion. Used deliberately as a means of self-influence or self-education, under the control of the consciousness self-suggestion is often very useful. In self-com-

mand, a person sets himself a task in the imperative form to do something and experience a certain state; in self-suggestion the person convinces himself that he has already achieved this: "I am asleep", "I feel no pain", and the like. Self-suggestion is often called self-hypnosis, as it was by the psychiatrist Johannes Schultz, the first to substantiate a system of autotraining, purposeful self-suggestion.

Hannes Lindemann, one of Dr. Schultz's students, was obviously very successful in practising autotraining. He writes: "One can engage in autogenous training anywhere at any time. These exercises were vitally necessary to me during my trip. Do not forget that I had to spend 72 days and 72 nights in the boat, on a small wet bench, almost without getting up. A permanent sitting position would, one might think, inevitably lead to painful sores. For this reason I included in my system of autogenous training an idea of the feeling of warmth and regularly called up this feeling, especially on cold, wet days. By the way, to call up a feeling of warmth or cold is one of the primary autotraining exercises.

"Thanks to exercises in warmth, I protected myself from the painful sores, inevitable after long periods of immobility and the impact of sea water.

"I used AT exercises for other purposes, too, of course: autogenous relaxation reduces the expenditure of energy and calories pointlessly wasted by a cramped and constantly tense person. Deep relaxation creates a feeling of physical well-being, arouses a feeling of satisfaction. Anyone who can relax properly forgets the usual fears and worries, requires less sleep, and sweeps away the uneasiness that accompanies permanent immobility.

"I steered the boat with my feet both when wide awake and when half asleep, and even during periods of autogenous absorbtion. For a beginner, this would be impossible; for an experienced person it is a reflex action, an automated one.

"Autogenous training added to my strength and belief in success during the preparations for my trip. It softened pain and fear, helped me struggle against the chronic lack of sleep, overcome hallucinations and many other difficulties. AT allowed me to cross the Atlantic and remain alive."[1]

[1] Hannes Lindemann, *Op. cit.*, pp. 14-15.

There are now very many diverse and often contradictory methods of self-suggestion. Particular questions and sometimes matters of principle are debated: should the role of self-suggestion be limited by the regulation of psychophysiological processes or can one instil in oneself ideas of principle and so on. In order to answer these questions, one should have an idea of a real self-suggestion mechanism. But let us first discuss hypnosis.

Pavlov once explained hypnosis as a brake on the cortex while one part of the brain remains "wakeful" through which the hypnotist establishes contact with his subject and gives him commands.

Since the cortex ceases to exercise control, being in a state of inhibition, the person is suggestible and submits to the hypnotist's command.

There exists another not so generally accepted explanation of the mechanism of hypnosis. In Russia it was given by V. P. Protopopov, who worked with the outstanding scientist Vladimir Bekhterev (1857-1927). He believed that hypnosis was connected with the highest degree of wakefulness, when the centre of heightened excitation appears on the cortex, so the person can fulfil individual actions more efficiently. Protopopov was not the first to come up with this idea, which was originally put forward by the German physiologist Max Verworn in 1907. The views of these authors, considering hypnosis not as sleep but, on the contrary, as a higher degree of wakefulness, have been criticised by a number of scientists, who have asserted that, under hypnosis, blood pressure and the pulse rate fall, which indicates that hypnosis is a sort of sleep. This argument fails to consider, however, the fact that when it is suggested to a person that he is working actively, both his blood pressure and his pulse rate go up. A phenomenal memory and extraordinary physical powers during hypnotic sleep testify to the vigorous activity of individual parts of the brain.

In all probability, one should accept as the main principle the assertion that hypnosis is sleep, but without rejecting the idea of the presence of a centre of heightened excitation. These two approaches may possibly be mutually complementary and, when adopting the first, it should not be forgotten that there is a part of the cortex with a heightened level of excita-

tion, with a higher degree of wakefulness. Proceeding from what has been said about hypnosis, self-suggestion may be explained as sleep brought on by inhibition of part of the cortex and, at the same time, the stimulation of a certain part of it, which makes the memory more effective, mobilises additional physical powers, and so on.

For all the contradictoriness of the methods of self-suggestion, they must proceed from the specifics of the vital activities of people under concrete conditions, and be based on general physiological laws.

The main thing in self-education is that self-suggestion must always be geared to strengthening a person's will, meaning it must be controlled by his consciousness. As far as physiological processes and the physical state of the organism, the regulation and mobilisation of strength or, on the contrary, relaxation and sleep are concerned, the usefulness of self-suggestion is obvious. Yet self-suggestion can be quite dangerous. For example, having instilled in himself certain mistaken views, a person is not only more difficult for society to educate but also bound by false conceptions. The inculcation of unobjective conceptions in oneself often has a detrimental effect on the personal contacts between people, hinders a person from building his relations with other people correctly. For example, when suggesting to oneself: "He is bad, is unjust towards me" and similar ideas, a person becomes unobjective, and sometimes too coarse in his interrelations with other people, this having a negative effect on his own nervous system, too. In literature on self-suggestion, to counter a state of stress it is often recommended that a person suggest to himself the idea that his affairs are going well, that he is highly appraised, approved and that everything is fine. Let us imagine that a person makes a mistake in his relations with his friends, and his actions are given a far from positive assessment by those around him. Then self-suggestion of his infallibility—sort of rose-coloured glasses, prevents him from correctly assessing events and makes him captive to false opinions. Even the opposite view: "I shall not exaggerate my successes, now. I am objective in assessing my affairs," certainly does not help correct the situation. Self-suggestion reduces the control exercised by reason, and the person who suggests to himself that he is objective, does not become objective; on the contrary, the

possibility of assessing his actions and the behaviour of other people without prejudice is precluded.

In such a situation, a person may be helped by one of the means of self-education on the conscious level—self-command. A command given to oneself to strive to be objective, does not instill in the person the idea that he is already objective and does not hamper self-criticism; quite the opposite, it prompts him to assess his personality and situations in life comprehensively and objectively taking account of all possible circumstances.

When helping a person to manage himself self-suggestion and self-command divide up the sphere of the conscious and the unconscious in the personality between themselves. Moreover, the effectiveness of these means rises particularly when there is a special, consciously set orientation on managing oneself, on fulfilling obligations to the self and on strong-willed behaviour.

Chapter 3

SELF-EDUCATION OF THE WILL

A certain level of development of the will is a necessary foundation and condition for implementing a self-education programme, so self-education of the will is not only the goal of the development of one aspect of the personality, but also a means for its integral moulding.

Let us first analyse the main characteristics of strong-willed behaviour, in order to clarify the essence of the will as a specific phenomenon. This is all the more important since there exists a broad interpretation of the will that includes related processes under the term "will-power", which is considered as something collective, amorphous and even as a sort of literary metaphore. Often, the chief specific of the will is regarded to be the conscious character of behaviour, so any human activity, since it presumes the understanding of a goal, is considered to be an act of the will. A person's conscious activity must not be equated, however, with acts of his will. It often happens that a person, fully awake that he is making a mistake, disrupts his plans, behaves in a weak-willed way and gives in to the will of others. Far from all conscious activity is strong-willed.

The broad interpretation of the will is connected with its identification with impulsive behaviour, with unconscious, uncontrolled actions, prompted directly by the person's emotions.

Let us note that a number of psychologists have repeatedly stressed that it is wrong to identify strong-willed with impulsive behaviour. Strong-willed behaviour, in contrast to impulsive, is purposeful, conscious and controlled in character. Pavlov pointed out the nature of impulsive actions: "... the hysterical subject lives to a greater or lesser degree not a rational, but

emotional life, is governed not by activity of grey matter but of subgrey matter."[1]

To identify impulsive behaviour with strong-willed would, in essence, be tantamount to an underestimating of the role of consciousness in the latter.

The distinction between impulsive and strong-willed behaviour does not, however, give grounds for excluding emotional activity, stimulated by a person's requirements, from the sphere of the act of the will.

An attempt to identify the specifics of strong-willed behaviour on the basis of "I must" in contrast to "I want", without taking account of the feelings involved and the real position of the individual, leads to a formal interpretation of the will.

Governed by such an understanding of the will, one would have to recognise the behaviour of a strong-willed person, determined by a feeling of "I want to fulfil my duty", as being weak-willed. It should be stressed that a person's internal duty is characterised precisely by a wish to fulfil his obligations conscientiously. A person who is compelled in the act of will to overcome wishes that conflict with his duty, overcomes them as a result of the leading, dominant wish to fulfil his duty. This does not mean, of course, that certain wishes cannot conflict with duty, that, in the act of the will in general, a person does not have to overcome certain wishes.

Accordingly, it is wrong to attempt to determine the specifics of the will in terms of a sense of "I must" in isolation from and contrast to the individual's wishes, which are supposedly, in the case of the act of the will, antagonistic to duty. It is a unity of duty and wishes in a person that characterises a strong-willed individual.

This is particularly important to emphasise, since the antagonistic opposition of the will to the individual's wishes in the process of self-education prompts an interpretation of this phenomenon as self-suppression or self-compulsion. On the contrary, the thesis of the unity of a person's duty and main wishes in the act of volition helps in understanding self-education as the process of the individual self-assertion.

[1] I. P. Pavlov, *Twenty Years' Experience of the Objective Study of Higher Nervous Activity (Behaviour) in Animals,* Meditsina, Moscow, 1951, p. 376 (in Russian).

Even the identification of signs of will-power does not, however, in itself mean that the broad interpretation of the will has been overcome and replaced by precise definition of its specifics, since far from every instance of overcoming obstacles and displaying strength of character is a distinguishing feature of will-power. This must be stressed particularly because it is merely external objective hindrances in a person's way that are often called obstacles, rather than the subjective difficulty a person has to overcome. Let us imagine a soldier, fleeing in panic from the enemy, overcoming various obstacles, ditches and ruts in his way. Here the organism and vital activity are one and the same, the overcoming of obstacles is determined by the survival instinct, not the will. At the same time, another soldier, who has controlled his fear for the sake of duty, subordinates his vital activity to his will, overcomes an inner difficulty and remains on the field of battle. It is obvious that it is he who is displaying will, though he is not apparently overcoming any obstacle, if defined in physical terms only.

The overcoming of an external obstacle is not a specific sign of will, adequately characterising it, for the simple reason that it may be conditioned by other factors apart from will: physical training, skills, abilities, and the like. Thus, for an untrained, bad swimmer, to jump from a low spring-board may present a substantial difficulty and require considerable effort of will, while for a good swimmer it is a commonplace enjoyment, requiring no will-power.

Unfortunately, a person's will is often judged formally, merely according to the results achieved, no account being taken of the motives, skills, abilities and physical training furthering their achievement.

Drawing a direct link between the will and the overcoming of external obstacles may lead to a certain voluntarism in the interpretation of a person's behaviour, to recognition of the formula that will-power "is capable of everything", while a person who could not overcome the obstacles is supposedly weak-willed. There have been numerous examples in the history of mankind when people with strong wills and known to be heroic have been unable, because of objective circumstances, to achieve their set goal, to overcome the obstacles standing in their way, and have even died in the attempt.

Considering all this, particular stress should be laid on the fact that the term "obstacle" must be interpreted not only on the external but also the internal plane, as being a subjective difficulty ultimately determined by external factors: fear, exhaustion, and so on.

There are, therefore, grounds for picking out conscious, purposeful efforts helping to subordinate a person's vital activity to overcoming difficulties as being a sign of will-power. This is the situation when the "ideal" tendencies become a force displayed in strong-willed behaviour. "The influences of the external world upon man," Engels wrote, "express themselves in his brain, are reflected therein as feelings, thoughts, impulses, volitions—in short, as 'ideal tendencies', and in this form become 'ideal powers'."[1]

It is worth dwelling specifically on the role of these "ideal tendencies", in other words goal-setting, in the act of the will, stressing in particular the conscious character of the goal as a motive and stimulating factor behind strong-willed behaviour. As Hegel noted, a person is no longer satisfied with subordination to laws as authority and external necessity, but wants satisfaction for himself, to make sure that what is essential for him is precisely the goal and what he must do to achieve it.

The very realisation of the goal as the motive behind one's behaviour is a distinguishing feature of strong-willed behaviour.

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When stressing the significance of educating the will, it is customary to call it a guarantee of happiness and success in life. There is more than a small element of truth in this aphorism, for will-power enables a person to overcome difficulties on the way to his goal—and the goal determines the meaning of human life.

Inherent in man is such a strong striving towards the future that at times he is even inclined to forget about today, in the hope of living a really interesting and happy life, making com-

[1] Frederick Engels "Ludwig Feuerbach and the End of Classical, German Philosophy", in: Karl Marx and Frederick Engels, *Selected Works* in three volumes, Vol. 3, Progress Publishers, Moscow, 1973, p. 352.

prehensive use of and developing his abilities, engaging in many entertaining matters only far in the future.

Indeed, hopes pinned on the future, when a person constantly puts off doing important things till the distant "tomorrow" and wastes energy on the daily bustle, create an illusory goal, lead to the loss of a clear orientation in time, and eventually weaken and disorganise the will. There are many people who, at the end of their lives, regret lost opportunities and years lived without thinking.

A person's striving to complete important tasks, fulfil his plans in practice, and live every day in an interesting and full way, temper the will. In self-education of the will, therefore, it is extremely important first to set a realistic goal that is sufficiently effective for the development of will-power. Self-education must be geared to achieving specific results in the ability to master oneself: trying to maintain a good, lively, optimistic mood, do worthy things, behave in a friendly way towards others. Here, the useful role of the ideal, especially in youth, may be played by the model of a strong-willed person, a person from history or the hero of a work of fiction.

The life of the great Russian general Suvorov, who, by means of self-education, achieved exceptional results, may serve as a clear example of this. This feeble man, sickly from birth, not only restored his health and overcame his sickness by means of cold showers, constant physical exercises and gymnastics but also developed in himself a strong will.

Even so, with age a person develops his own idea of the ideal personality, which he often measures against his own. A too positive image of oneself as attractive, close and personally significant, may at the same time halt a person's development, since he involuntarily and unconsciously copies his "favourite" model, is uncritical of his own shortcomings and weaknesses of character. He may even be aware of these shortcomings, but be quite indulgent towards them.

If this "image of oneself" is well formed, of course, it helps a person maintain a high vitality and stability of the positive aspects of his behaviour. If, moreover, the person sees prospects for developing his own personality, his image of himself will not remain confined to what has already been achieved, but will help him set new self-education goals.

In addition to the desire to develop personal qualities, it is useful to plan the achievement of specific practical results. Leo Tolstoy once pointed to this sort of practical goal for he, as those who knew him were aware, was particularly drawn to improvement of his personality as a goal in itself. Tolstoy also focused attention, however, on the fact that self-education should not be confined to just the development of personality traits. In his diary he wrote: "I began to lose strength somewhat because, mainly, it appeared to me that however much I worked on myself I would achieve nothing. This idea occurred to me because I was engaged exclusively in collecting my will, without concerning myself about the form in which it was displayed. I shall try to correct this error. Now I hope to prepare for my Candidate exam; consequently that is the form in which my will must demonstrate itself."[1]

In whatever sphere activity a person's goals are set, they must be significant ones, otherwise they will not be sufficiently effective incentives to systematic strong-willed behaviour, for the idea, now an aphorism, to the effect that a great goal engenders a great will, has much to say for it.

The well-known Soviet literary critic, Academician Dmitri Likhachev, gives a very interesting description of such goals and their influence on people's lives and will:

"Very much of what a person has achieved in life—what position he holds in it, what he brings others and reaps himself, depends on the person himself. Success does not come by chance. It depends on what a person considers to be success in life, how he assesses himself, what position in life he chooses, what, finally, his goal in life is.

"Apart from small and temporary personal goals, every person must have one major suprapersonal goal, and then the risk of failure will be reduced to a minimum.

"Let us assume that you have set yourself the suprapersonal goal, the highest of all—of being as useful as possible to other people. What 'fatal' failures can prevent you from fulfilling this, your biggest goal in life? Its fulfilment can be achieved under any circumstances, while failure—a 'zero result', only in indi-

[1] L. N. Tolstoy, *Selected Works* in twenty volumes, Vol. 19, Moscow, 1965, p. 33 (in Russian).

vidual ones. Overall, however, you will succeed, you will achieve success and the acknowledgement of others. And if you find your personal happiness in this task, then you will be guaranteed happiness."[1]

The attainment of any, even the most remote goal, also presupposes, of course, the fulfilment of tasks leading to that goal. Such partial tasks may become signposts on the difficult, and sometimes thorny parth towards the attainment of major successes in life.

The will is born in intense activity, in overcoming difficulties. As the great Russian pedagogue Ushinsky remarked, "our will, like our muscles, gains strength from constantly increased activity... If not exercised, both your muscles and your will will be weak."[2]

Another opinion is currently often expressed, especially in works on autotraining: in order to make successful use of advice on developing the will, enormous will-power is required, while, in actual fact, influencing the self must be accompanied by pleasant emotions.

There are few, of course, who would take exception to the idea that pleasant emotions are useful. But it would be a great mistake and totally illogical to think of the education of the will as an easy and always pleasant process.

Indeed, is it always possible to feel satisfaction in the self-education of the will? After all, a person has labour obligations that may conflict with the desire to distract himself, and do something else that would be easier at the given time. Moreover, there may be a moral choice between motives, when a person must make a major effort of will and in doing this vacillates greatly, suffers unpleasant emotions from making the decision that is more correct, moral and dictated by the person's conscience, but requires the subordination and overcoming of many wishes and strivings that are pressing at the given moment.

A person often has to make such an effort of will, or overcome tiredness with such difficulty that he experiences strong negative emotions.

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[1] D. S. Likhachev, "Your Profession and Your Patriotism", in: *Lenin, Science, Youth,* Moscow, 1980, pp. 213-14 (in Russian).

[2] K. D. Ushinsky, *Op. cit.,* Vol. VI, 1949, p. 294.

Training of the will, as we have already said, is hard work. But development of the will is so interesting and the results so significant that there are grounds for being optimistic about self-education. A person's confidence in his success, in his major opportunities and his powers is very important. This is a necessary condition for work on himself. Optimism engenders positive emotions, which makes for the rapid restoration of energy spent, stimulates a person to overcome further difficulties, and that, in turn, strengthens the will considerably.

Apart from optimism, of course, in order to determine his goals properly, a person must know his own possibilities, the strong and weak sides of his character. Research has shown that self-analysis is interesting and effective at different ages. True, there are many people who make hasty decisions, exaggerate or underestimate their abilities, minimise their mistakes, and so on, while this occupation requires a comprehensive and profound consideration of the specific facts of behaviour, their generalisation and the elaboration of a system.

The complex human mechanism of strong-willed behaviour is stimulated by a person's wishes. Self-analysis of the will presupposes that a person compares his goals with the actual experience of his behaviour, the reasons for his failures, and possibly, mistakes. Paraphrasing Goethe, one might say that you find out what you are made of when you try to do your duty.

Self-cognition is also furthered when a person compares himself with others.

Unfortunately, there are many people who, while striving for something remote, fail to note how much there is of interest in themselves and those around them. It would be useful for them to think more often about themselves, to account to themselves for their actions and behaviour, measuring them against the decisions taken on self-education of the will. Accounting to oneself may be direct, involving close observation of one's behaviour. This sort of accounting is particularly important for cognition and adjustment of behaviour. Thus, for example, a person who has decided to become self-controlled, to display tact when taking part in discussions, constantly compares and analyses the extent to which he has fulfilled his adopted obligations, and accounts to himself. He is helped in this by an ability to distribute

his attention between different aspects of his behaviour and reactions of those around him.

It should be noted that, for self-accounting in the process of strong-willed behaviour, as we have already seen, a person needs to be able to distribute his attention while, at the same time, controlling himself and carrying out his practical tasks well. It is frequently believed that such "accounting" disrupts the will, but we cannot, of course, agree with this. The human mind has such vast possibilities that anyone who wishes may, in the process of the most intense labour activity itself or in an acute emotional situation, account to himself constantly and on time for having fulfilled his obligations in developing self-restraint, resoluteness and persistence.

Many people are helped in taking decisions by mediated self-accouting for results achieved, which takes place after the work has been done, when a person goes through current events in his head: how he spent the day, whether he fulfilled all his tasks, whether he did everything correctly. In doing this he compares the goals set for self-education of the will with his actual, real behaviour.

On the basis of cognition of one's possibilities, it is very important to compile a daily timetable, the fulfilment of which presupposes first of all substantial efforts of will and promotes development of the will. Then, as specific stereotypes of behaviour and habits for the given timetable are elaborated, it helps to mould a strong-willed character. It is a rare person who has never, at least in his youth, engaged in this, has not promised himself "to begin a new life on Monday". Yet there are many people who have often drawn up a daily timetable, but have never kept to it. This is often because the timetable is too detailed, the whole day being planned out to the minute. In real life, unforeseen circumstances prevent a too detailed timetable being fulfilled. What is needed above all is a fairly precise timetable, not overburdened with details, which reflects the chief "blocks" of vital activities: a certain time for sleep, work, sport, rest. The length of time allotted for sleep is naturally included in the timetable. As a result, the question often arises as to how much sleep a person needs. As the majority of experts assert, an adult needs 7 to 8 hours a night, this amount decreasing somewhat with age. True, there are many people who live long

and fruitful lives on only 5-6 hours' sleep a night, such as the scientists Edison, Vavilov, and Vinogradov, whom we have already mentioned. Apparently the question of how long a person should sleep requires further study.

It is particularly harmful for young people, who are still growing, to work at night, for their physical development takes place during sleep. When a person is no longer young, the usual division between larks and owls, is permissible. Larks like to work in the mornings, owls—in the evening and at night. Research has shown that it is usually older people who take to a night life. As a rule, however, under all conditions, considering that a person's peak of physiological activity is at 11 a.m., the morning hours are more productive for work.

It may prove quite difficult, when trying to fulfil the daily timetable, to get up at a specific time. Here self-command is a great help. Sometimes people are amazed by their ability to get up at a certain time, even without the help of an alarm clock or outside help at particularly important moments in life, when a person needs to prepare for important work, arrive on time for exams, and so on. This is the effect of a self-command the person has given himself before going to sleep: a sort of biological clock is wound up and the person wakes up on time.

Self-commands are far from always carried out, however, for various reasons as we have already mentioned. Now we shall consider their place in the process of volition. This process consists of the following chain: first a goal is determined, then, possibly, there is a struggle between motives: to fulfil or not fulfil what has been planned, or how to achieve this goal. The struggle between motives may take place even in a strong-willed person. Sometimes it is thought that a strong-willed person cannot experience such a duality, that for him everything is clear-cut, that he follows the straight and narrow. This is, of course, far from true, for even the choice of a means for achieving a goal always presupposes arguments for and against, and contradictory feelings.

After the possible struggle between motives and the adoption of a decision, a self-command is given, and the decision of will is fulfilled.

Instances of weak will are also possible, however, when a per-

son begins to doubt the need to carry out his decisions. As a result, easy tasks become difficult to carry out. Pathopsychologists also describe situations when a person cannot even find the strength of will to raise his hand and drink water from a glass standing in front of him. Unfortunately, weak will connected with non-subordination to oneself, though not in quite such extreme forms, is very widespread. Here it is very important to practise self-command, to give oneself a command aloud: "I must", "do it!" and the like, and definitely carry it out. Thus, in getting up in the morning, first the order is given aloud to get up, and three minutes later (during this time a certain restructuring of physiological processes takes place from the state of rest to wakefulness) the person gets up. In our experiments, those being studied developed the habit of getting up at a specific time, without excessive vacillations or effort, in the course of 10 to 15 days.

The significance of this experiment will become clearer if we consider that many people have difficulties in fulfilling their daily timetable, especially getting up on time. A person wakes up at a certain time, decides to get up, his muscles even prepare for getting up, but he lacks the habit of obeying himself; he is used to arguing with his own decisions and begins to persuade himself: "I'm too tired today, I went to bed late last night, I've got a hard day ahead of me, I must take care of my health, I'd do better to start keeping to my timetable from tomorrow". The muscles relax again, he falls back into a half-sleep. Essentially, it is the person's will that is sleeping and his character is weakened.

In the self-education of the will and character, an orientation on self-command is very effective in difficult, particularly conflict situations. Such an orientation helps people, even ones with the most excitable, choleric temperaments, to master themselves better. In fact, a set goal such as "I will be outwardly calm, self-restrained and polite in my behaviour" proves quite effective. There are many people with a choleric temperament who manage to keep themselves under control in this way. Even so, psycho-physiological and even chemical changes accumulate meanwhile, a heightened quantity of adrenalin and sugar enter the blood, the metabolism is disturbed, and serious illness may ensue. As we can see, even an ability to master ones's behaviour

does not eliminate the consequences of overexcitement or any sort of agitation and stress situations.

True, measures have been suggested that do, to a certain extent, reduce the consequences of emotional tension. For example, it is recommended that emotional tension be "discharged" by means of physical exercise, for 5 to 10 minutes, without overexerting oneself.

These are all, however, sorts of safety valves helping to release the overheated emotional "steam". Injury to the organism, unpleasant sensations and states remain and may even accumulate, which is very dangerous.

The task of self-education must also include the development of the ability to control one's emotions. After all, one may take different attitudes even to conflict situations. This depends largely on the person's orientation.

Thus in the dispute the following orientation helps: to argue in a calm, confident voice, to stand up for your point of view, to provide an example of the ability to control oneself.

But the lack of the necessary flexibility might lead to an excessively conservative orientation, to the person's subordination to a previously set idea which is untenable in a given situation.

Let us imagine that someone goes to a production meeting in a good mood, knowing that he is to be rewarded, and on the way seeks words to indicate his modesty and, of course, express his gratitude for the kind attitude taken towards him. Unexpectedly, his anticipation and orientation prove groundless and, on the contrary, he is severely rebuked; he is psychologically unprepared to argument his thoughts clearly, precisely and convincingly and to justify his actions. On returning home, depressed, he thinks: "Why didn't I give arguments one, two and three, then everything would have been clear, and everyone would have seen that I was right." Sometimes a person is in a bad mood, and he takes an equally negative attitude to good intentions towards himself and just reproofs. He unjustly comes into conflict with people around him and then regrets bitterly that he gave in to his mood and behaved thoughtlessly. If a person is depressed and lacks confidence, maybe even feeling fear, he may agree too readily with a view that he finds unacceptable, submit to the will of another and only later realise that he was not on top of the situation, was not purposeful, persist-

ent or restrained enough. An orientation on another person's perception exerts a major influence. Moreover, this perception may be extremely distorted and false, owing to a mistaken orientation. An original experiment was carried out with students: they were shown two photos, one showing scientists, the other—criminals. When the experimenter showed the first, he told the students it was a photo of criminals, adding that people are not, of course, criminals from birth, so they were to find signs of both criminality and intellect in these "criminals"—and the students found mainly signs of criminality in these, in fact, scientists.

Then the students were shown the photograph of criminals and told they were scientists. Again they were advised to seek for signs of both intellect and possible signs of criminality, which are not, in principle, out of the question in people engaged in science. The students found mainly sings of intellect in these "scientists". Thus, the students' orientation determined their perception of these photographs.

A conscious orientation in the form of an instruction to the self: how, in which specific situations, without giving in to mood, one should organise one's behaviour, helps a lot to remove the negative trends in an unrealised orientation and, on the contrary, strengthen the positive ones, to make it a sort of catalyst to self-education. It is necessary to perceive one's specific actions in such a way that the goals and the programme for self-education of the will remain constantly under self-control.

Instructions to the self in fulfilling one's obligations to be restrained, proper, persistent, decisive and firm in attaining one's goal, both in the process of labour activity and in personal relations, help a person keep on top of his tasks and master his will.

Sometimes the method of orientation gives rise to objections such as: it is difficult to do this and, besides, emotions and feelings are beyond our control.

Let us recall that there are many people who behave completely differently and experience different emotions depending on their orientation "as boss or subordinate". Even without grovelling, a person is usually restrained and polite, and smiles respectfully even during a none too pleasant conversation with his boss. In relation to a subordinate, however, even under objec-

tively calmer conditions, he begins to "boil", to become agitated and emotionally worked up. Such a person becomes excitable most easily in relation to people who fear him and show this fear.

Some children become completely intolerant of aged parents, especially if the latter are materially dependent and helpless, and frightened of losing the goodwill and love of their grown-up children, use an ingratiating tone, are afraid of making mistakes owing to their bad hearing, loss of memory and the like. These same children may, at the same time, love their parents and even regret their behaviour. Yet the "negative", aggressive orientation that has arisen in their perception even of their aged parents encourages emotional explosions, conflicts, and sharpness in their relations.

When a person who is not cultured or kind enough and does not consciously control himself sees that someone is afraid of him, he becomes emotionally oriented on aggression.

Other situations could be presented as examples. It is noteworthy that to orient oneself consciously on restrained, worthy, conscientious behaviour helps one control one's emotions and, particularly important, to get rid of the extremely unpleasant, most stressful emotions—anger, rage and the like.

Is there any point in these emotions at all? Initially, when people solved their "difficult" problems mainly in a physical way, by brute muscular strength, extreme negative emotions, so-called violent, wild states, served to mobilise a person's physical powers to the maximum, increase the energy of the organism in a mortally dangerous fight. When a person's fate was being decided—to live or die, external wounds and injuries as a result of these extreme emotions were not as significant as the possibility of man surviving extreme danger. Such situations still arise, of course, even today, especially during wars, and the like.

Today, however, civilised man more often resolves personal conflicts on the "intellectual", verbal level, when there is absolutely no need for such an extreme emotional reaction and the actual energy "mobilised" is not spent in a physical way. Modern man, too, of course, when angry and enraged automatically clenches his fists, grinds his teeth, and so on, but this is just a pose, while the physical energy is ultimately turned inwards, which is even more detrimental to the personality.

When a person succumbs to anger and especially its strongest and final stage—rage—he loses conscious control over his behaviour. A fit of anger can only be bridled right at the beginning when, realising that he is starting to lose control of himself, the person gives himself the command: to behave reasonably to control his feelings and not give in to unbridled emotions.

When, of course, a fit of noble anger helps a person to stand up for justice in a risky situation, for example, to protect someone weak, this feeling of anger should not be controlled or suppressed. It is important, even in this case, to assess the situation realistically and orient oneself on mobilising one's will.

The task of mastering one's emotions does not mean, of course, indifference or an impassive character. It is all the more important to take into account the fact that a person's passions are often thought of as something negative, opposed to reason, and a hindrance to rational life.

This is not, of course, true. When a significant mobilisation of the will is required to achieve a noble goal, the greatest intensity of human feelings, when they assume a passionate character, is essential.

There can be no doubt that passions should be kept under certain degree of conscious control, otherwise the danger arises of a person becoming captive to his passions, losing power over his own will, and of his activities being governed by "subconscious" desires, rather than a rationally set goal. Jean-Jacques Rousseau stressed, in particular, the role of conscious control over the passions. In his opinion, all passions are good when we are in control of them and all are bad when we succumb to them.

Even so, this interpretation gives a one-sided assessment of the role of control of the passions. After all, there are base passions: a passion for violence, for enrichment, for cruelty. Even conscious control over them cannot make them noble. Voltaire gave a dialectical definition of the role of the passions. He believed that the passions are like winds, filling the sails of a ship, a wind that does, indeed, sometimes sink the ship, but without which it would be becalmed.

In assessing the role of the passions, account must be taken of their orientation, the direction in which this powerful force moves a person. It is important for a person's passions to stimu-

late him to achieve useful, socially and personally valuable goals.

A person's habits, which create the most stable "skeleton" of his character, can make his movement towards a goal more optimal. These are the habits of keeping to a specific daily timetable, a specific way of life, for which the person begins to experience a need. Habit is, indeed, second nature. A person follows a smooth, well-known path, as it were. Yet this habitual way of life may conceal a conservatism of character, hampering its own improvement. A habit, once established, is difficult to overcome. For example, a person who wants to break off his previous, outdated relations and begins to imagine a new future for himself, feels obvious discomfort.

The fact is that, as Pavlov noted, an individual gets used to a specific character of relations with the environment. The stereotype becomes stagnant, often difficult to change, even in a new situation.

As a result, the person sometimes no longer even considers that it might be possible to live differently and better, to change the habits that have become a burden, or reveal the many interesting abilities of his personality.

It should be stressed that even the extremely important character trait of being accustomed to purposefulness in achieving one's tasks must be kept under conscious control. In principle, the value of the strong-willed, staunch character, which helps one to achieve significant and outstanding results in life is generally recognised. It is difficult, of course, to imagine a person living without any goal at all.

It is a different thing that the goals should be sufficiently significant, for people excessively involved in trivial matters usually become incapable of carrying out major ones. For this reason, a person's ability to rise above the trivialities of life and focus his attention on the main thing, assumes a special role. Otherwise he may succumb to the daily turmoil and negative emotions. Then he is constantly irritated and unrestrained in his relations with those around him. In this case, he is said to have a difficult character.

If a person is aware of the good and bad points in his character, considers himself seriously and has a critical attitude towards his personality, this helps him not to succumb to bad habits. In this case, he looks at himself from the outside, as it

were, compares himself with other people, considers whether there are any signs of cantankerousness, stubbornness, or pessimism in his character, whether people consider him difficult to deal with, and so on.

A person's character is not only perceived, but also trained and tempered in action. In self-education of the character, the determining role is played by labour activity that cannot be broken off. The person becomes firmer, he develops stereotypes for overcoming day-to-day difficulties. Consistency in fulfilling the set tasks is called on to foster persistence. This is a sort of pivot for a person's behaviour. Where that pivot it directed, however, and how it will reflect on a person's interrelations largely depends on his intellectual, cultural and moral development. For example, such a valuable character trait as persistence becomes stubbornness in a person who is not reasonable. Cicero noted long ago that every person can make a mistake, but only a stupid man will stick stubbornly to his mistakes.

Let us repeat: a staunch, strong, optimistic character must be combined with a developed intellect, and be kept under conscious control. A person's will and reason in close unity with each other, are what govern his character.

Chapter 4

THE PROBLEM OF INTELLECTUAL SELF-EDUCATION

The self-education of a harmoniously developed personality presupposes independent purposeful development of an individual's intellect. People's intellectual self-development has a deep social sense.

In society today, with its high level of development of production and high educational standards of experts, a person's intellectual development is a condition for and indicator of his social value as a worker.

For this reason, independent improvement of one's thinking abilities—mental self-education—is a pressing problem today.

First of all, however, the question arises as to which of the chief features of a person's mental activity can be improved.

A precondition for the fulfilment of this task is, of course, an initial and adequate volume of knowledge, the minimum necessary for the chief mental operations.

Yet knowledge, included as a component in mental activity and related to it on this plane, is not, at the same time, identical to a person's intellect. It is all the more important to remember this considering that, for a long time, knowledge was taken as a synonym for cleverness. In the 18th century the so-called theory of material education took shape. Essentially it proceeded from the thesis: "The more a person knows, the cleverer he is."

No doubt many people learn from their experience of contact with others that knowledge does not, in itself, indicate that someone is clever. As the Czech writer Karel Čapek noted with irony: "One of the greatest disasters of civilisation is the edu-

cated fool," for if considerable scientific knowledge has not helped make a person cleverer, it often inflates his conceit and self-satisfaction. Even Shereshevsky, mentioned above, who had a phenomenal memory, and was able to remember whole books by heart after reading them only once, and retain enormous quantities of knowledge in his head, did not display any special creative mental abilities, and his activities on this plane were quite mediocre. Democretes noted quite justifiably that one should strive not so much for a large amount of knowledge, as for comprehensive "education of the mind". Knowledge is, of course, necessary as the building material, the unique bricks, and today complete blocks out of which the elegant structure of the human mind is erected.

Knowledge is used effectively in a person's activities if he has mastered the universal methods of thinking activity (operations) —analysis, synthesis, comparison, argumentation, and the like. The most developed thinking process is argumentation—a whole system of logical operations, carried out in a specific sequence: 1) definition of the concrete subject to be proved, identification of its chief characteristics, the presence or absence of which needs to be argumented; 2) establishment of the interdependence of the characteristics identified, and their mutual subordination; 3) adducing, in the necessary sequence, of weighty arguments confirming the presence or absence of previously noted characteristics in the phenomena under study; 4) the drawing of a conclusion from the arguments, suited to the set goal of the argumentation.

This content and sequence of argumentation corresponds to the demands of dialectical and formal logic of argumentation— a series of deductions proving the truth or falsity of the thesis. Any divergence from this structure of arguments makes their substantiation inadequate or invalid. In practice, the thinking process is not always this developed, and individual operations may become automatic, concentrated as it were, but must not be excluded.

By mastering the method of general logical argumentation, a person is enabled to build his arguments correctly, depending on the specific conditions, according to the type of direct, indirect, inductive or deductive proof. His thinking becomes more profound and flexible, i.e., is raised to a higher level.

The mastering of the general methods of mental activities not only improves the thinking process, but, by leading to correct and profound conclusions and analogies, exerts an active influence on the very content of thought and thus makes the person's intellectual life richer and more interesting.

At the same time, account must be taken of the fact that unrealised orientations on a single type of thought process often lead to their becoming stereotypes, restricting the character of the search for solutions to intellectual problems. As the American psychologist Abraham Luchins believes, an unrealised orientation on a specific method of thinking appears after a person has used it successfully in solving several problems. Later, this method begins to be used even under unsuitable conditions, in the solution of fundamentally different intellectual problems. Such conservatism of thought may sometimes lead to the person restricting himself to the use of previously elaborated intellectual schemas, and concluding that a given phenomenon has been studied to the full. A person's understanding of the content of the positive qualities of the mind and the deliberate orientation on the character of the thinking process corresponding to these qualities may help in overcoming negative trends of an unrealised orientation.

Among the positive qualities let us note, in particular, breadth and depth of mind. This implies the ability to assess a phenomenon from all angles, absence of prejudice, one-sidedness, extremity or subjectivism. Stressing the significance of these qualities in a scientist, the well-known Soviet physicist Alexander Prokhorov wrote that, in his work, the researcher often has to overcome a psychological phenomenon that might be called the authority of the majority, which often plays a conservative role in the development of science. This is the obstacle most difficult to overcome. Only a scientist who has developed in himself, as a result of his own efforts and under the influence of an experienced and principled teacher, an ability to form his own opinion regardless of others can successfully overcome this obstacle.

A person with a broad and independent mind strives to consider and analyse a scientific phenomenon from all angles, to achieve new results, to understand the relativity of the knowledge obtained.

In contrast, a narrow mind is characteristic of people used and tied to traditional ideas.

The positive pole of intellectual qualities is countered by the pole of mental limitation and sluggishness. The well-known Russian literary critic of the 19th century, Dmitri Pisarev, noted that mental mediocrity is always distinguished by passive conservatism and counters the onslaught of new ideas with the dull resistance of inertia. Blind dogmatism and cheap scepticism are encountered equally frequently in people with narrow minds.

In particular, mention should be made of the creative cast of mind, as one of its positive qualities.

This is what leads to new discoveries in science. In order to understand the character of this sort of mental creativity, one might imagine the achievements of human thought, accumulated over millennia, as a sort of garden, through which people wander, accustomed to its neat and well-lit paths—traditional knowledge. Beyond the garden wall—the island of human thought—lies the darkness and gloom of uncertainty, which must be fathomed.

What is it that helps a person leave these neat, well-lit paths? After all, inertia prompts him to follow the usual paths. A person becomes accustomed to certain knowledge and views, he thinks, assesses and compares according to ideas formed previously in science.

It is the imagination that helps go beyond the limits of what has been achieved and the bounds of traditional knowledge. It is imagination, as a projector, that spotlights new knowledge in the surrounding darkness and helps in understanding new secrets of the Universe. Lenin wrote: "This quality is extremely valuable; it is wrong to think that only poets need imagination. That is a silly prejudice! It is needed even in mathematics; it would have been impossible to discover the differential and integral calculus without imagination. Imagination is a very valuable asset."[1]

This sort of imagination is based on a high emotional spur

[1] V. I. Lenin, Eleventh Congress of the R.C.P.(B.), March 27-April 2, 1922. Closing Speech on the Political Report of the Central Committee of the R.C.P.(B.), March 28", *Collected Works,* Vol. 33, Progress Publishers, Moscow, 1966, p. 318.

of mental activity. Emotions inflame a person's imagination, as it were, help him penetrate deeper into the uncognised.

If, in the case of creative imagination, the role of the emotions is more obvious, it is undoubtedly of equal significance, though not so visible and, therefore, evident, in all thinking activity. In his analysis of the interconnections between the emotions and thinking the Soviet psychologist Sergei Rubinstein came to the conclusion that "thinking as a real mental process is itself a unity of the intellectual and the emotional, while emotions are a unity of the emotional and the intellectual."[1]

In psychology, however, until recently a tendency still prevailed to separate feelings to some extent from mental activity, and even to counterpose the intellectual to the emotional in the personality.

This tendency was somewhat connected with the superficial interpretation of the divergence between a person's knowledge and his behaviour, which was explained in terms of the non-emotional, "dry" and rational nature of the thinking process. This ignored the fact that knowledge that was not "experienced" or accepted emotionally remained formal knowledge of little significance to the person, that the divergence between word and deed may, in some people, be connected with the contradictory nature of a number of specifics in the structure of the personality.

The appearance of verbal patterns, standard sentences expressing hackneyed and well-worn ideas, furthered a certain gap between thinking and the emotional sphere of the personality. The mechanical repetition of truisms, the use of verbal stereotypes, and idle talk confirm the well-known opinion that "although thinking is carried out in words, far from all words express thoughts".

It should be stressed that in this case the word is separated from both emotions and thinking. To some extent, certain words gradually lose both their sense and their emotional load, so this phenomenon does not touch on the essence of the link between the intellectual and the emotional spheres of the personality.

The increasing complexity of human thinking and language

[1] S. L. Rubinstein, *Problems of General Psychology,* Moscow, 1973, pp. 97-98 (in Russian).

furthered the elaboration of abstract categories, the penetration of human thought into subjects of no personal meaning to him, not directly connected with a person's vital activities. This could not but be reflected in the links between thought and feeling, sometimes promoting its destruction. Yet such facts provide no grounds for concluding that this connection is broken off altogether.

On the contrary, the development of human thinking is precisely characterised by a further deepening of the link between the intellectual and the emotional. The more profound penetration by man into the essence of phenomena, the establishment of multifarious dependencies between his personality and the real world further a comprehensive sense-assessment of the personal meaning of a phenomenon. In this, the verbal fixing and assessment of the latter help the formation and actualisation of the whole complex of emotions. Then the concentrated, comparatively brief assessment proves to be connected with a rich variety of feelings.

As the intellectual abilities develop, the link between knowledge and emotions becomes more diverse and close, thanks also to the emotional experience of the very thought process, intellectual feelings mobilising a person's thinking powers and making thinking more efficient.

While stressing the link between thought and the emotions, Soviet psychologists believe that it is impossible to isolate thought reflecting the real world from one's emotions and requirements. Particular mention should be made of the fact that the emotions are considered not simply as the "start-up mechanism" of intellectual activity, but also fulfil an assessment function.

A person's acceptance of given conclusions as being personally significant presupposes a corresponding emotional assessment of them, i.e., we see a unity of thought and feeling and, consequently, the thought process assumes the emotional experience of knowledge.

A major role in establishing the link between the individual's intellectual and emotional spheres is also played by previously formed feelings. Thus, a feeling of satisfaction from solving a problem, carrying out a scientific experiment, which might accompany the process of cognition and not be connected with the personal assessment of the given activity, arises on the basis

of intellectual feeling, which itself took shape previously in former activities that gave a person satisfaction from cognitive activity.

Later, in the process of intellectual self-development, specifically intellectual feelings begin to crystallise. It should be noted that even Aristotle pointed to intellectual feelings as a component part of the intellect. He believed that the feeling of amazement "prompts people to philosophise", and that the emotion of amazement itself in the thought process also undergoes changes.

Descartes attached particular significance to the "emotion of amazement". In his "Treatise on the Passions of Soul", he stresses that amazement is the first of all the passions, and that those who lack a natural inclination towards this passion are usually very ignorant. Alongside the emotion of amazement, Descartes places the sense of doubt, which arises as a result of cognition and is an indicator of the thought process.

Spinoza expands and, most important, considerably deepens the interpretation of the emotions stimulating thinking, considering them in a certain dialectical comparison. Thus, alongside the feeling of doubt, he considers the feeling of confidence: "Confidence is pleasure arising from the idea of something past or future, wherefrom all cause of doubt has been removed."[1]

It should be stressed that the role of intellectual feelings as the motive force behind cognitive activities was discussed extensively in the works of the 19th century Russian philosophers. For example, the eminent Russian thinker of the 19th century Alexander Herzen writes on this: "The process of cognition is penetrated by feelings of doubt, confidence, insecurity, agitation, the torment of creativity, delight, suffering and the like. Who can forget his logical romance, who can forget how the first seed of doubt entered his soul, together with the first boldness of research and how it later seized him more and more and touched on the holiest acquisitions of the soul?"[2]

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[1] Benedict de Spinoza, *Improvement of the Understanding, Ethics and Correspondence,* M. Walter Dunn, Washington, London, 1901, p. 179.

[2] A. I. Herzen, *Selected Philosophical Works* in five volumes, Vol. 1, Moscow, 1948, p. 68 (in Russian).

Yet the question of intellectual feelings remains to be fully clarified and requires further scientific elaboration.

There can be no doubt that orientations, self-command, special tasks and other means of self-education aimed at a given perception and attitude, emotional assessment states, can also affect the character and orientation of the intellectual feelings and the entire process of intellectual activity.

It is clear from all this that self-education of the mind presupposes, above all, a person's orientation on forms and modes of thought that help stimulate mental activity and positive feelings. So orientation, self-command, self-instruction, can help one achieve breadth and depth of thought if they arouse a striving to go beyond outdated concepts and ideas, to overcome narrowness and one-sidedness of thought, to understand known facts and events more deeply, to exclude conservatism, and be sufficiently flexible in assessing rapidly changing situations. In this respect, the rule: "constantly force your mind to operate at full power" proved useful in Tolstoy's experience.[1]

Mental self-education presupposes the independent adjustment of one's thought processes and mental operations. The individual's efforts are directed, as it were, "into himself" to analysis and assessment of the very thought process.

This sort of analysis is helped by a knowledge of logical operations required in comparison, argumentation and other thought processes, as discussed above. Awareness of the chief methods of thinking makes it possible to determine one's mistakes and consider how to eliminate them. Mistakes and difficulties in argumentation may be most diverse. The most typical are a lack of ability to analyse properly—to divide the whole into its component parts; a linear perception of features without their differentiation into primary and secondary ones; comparison of phenomena in terms of incomparable features; selection of non-fundamental arguments in proofs, and so on.

Self-analysis may be helped by knowledge of logic, making it easier to follow the course of one's own and other people's thoughts. This knowledge may be obtained through self-teaching. The elaboration of a correct argumentation is assisted by

[1] L. N. Tolstoy, *Collected Works* in ninety volumes, Vol. 46, p. 15.

paying attention to the content of other people's arguments. It is important to outline the chief points that should be dwelled upon for one's own statements; to place these questions in such an order that they proceed one from another, are causally conditioned, to select facts confirming each proposition in an established sequence; to try and ensure an adequate number of arguments; not to discard facts that refute the proposition, but analyse them, compare them with the confirming facts and establish whether they change the course of the argument or not; to draw a conclusion and determine whether it conforms to the proposition that was to be substantiated.

This is also assisted by such questions as: judging from the other person's logic, has he understood the proposition correctly? Has he picked out correctly the focal points in the argumentation? Is his chosen sequence of arguments suitable? Are the arguments presented convincing? Was the number of them sufficient and necessary?

Such questions prompt one to recall the course of the argumentation in the mind and check how correctly each mental operation has been carried out, and to which results it led. Gradually a person gets used to controlling his sequence of arguments, orienting himself on a conscious system of actions, on the demands made on each logical operation.

The accumulation of personal experience of argumentation is furthered by special training in the problem of formulating questions and tasks for proof. Such questions and tasks activate a person's thinking, make him strive to substantiate his judgements. As the well-known Soviet psychologist Rubinstein notes, "thinking usually arises from a problem situation and is geared to resolving it".[1] The solution of any problem consists in presenting proposals and proofs of its truth or falsity.

Attention to one's speech, with which the thought process is closely linked, helps make the work on improving logical argumentation more visible and "audible". The striving to make one's speech more precise, clear, convincing and, at the same time, laconic is a condition for the self-development of the intellect. Unfortunately, clichés and patterns instead of thoughts,

[1] S. L. Rubinstein, *On Thinking and Ways to Study It*, Moscow, 1958, p. 14 (in Russian).

lengthy and empty verbiage are frequent, and this not only does not develop the mind; on the contrary, it engenders frivolity and superficiality in arguments and mental laziness.

Clarity of thought and of expression in a person usually coexist and a stated argument must be preceded by considered thought and its precise formulation. A person is helped in this by an ability to distribute his attention, to listen to himself, assess what has been said, introduce corrections during the development of an idea and, at the same time, think what to say next, avoid redundancy, and the like.

In the organisation of any work on mental self-improvement it is, of course, important to remember that it is not an abstract isolated process, but is accompanied by the individual's productive study, and socially useful work. Under the conditions of the intellectualisation of labour, solution of production problems involves mental exercise, analysis of situations, a search for rational solutions, the putting forward of hypotheses, their substantiation or refutation, precision and consistency, depth and breadth of thought.

Intense mental work rationally and correctly organised in the process of production activity, constitutes a major method of mental self-education.

* * *

Another method for expanding someone's creative possibilities and cognitive interests is self-teaching. Self-teaching is not only the raising of one's educational level, the independent mastering of knowledge (such a limited interpretation of self-teaching is still common in some works on this subject), but a means for self-education of the individual's creativity.

The role of self-teaching in the formation of creative abilities is rising particularly in the modern age, when the volume of scientific information is growing sharply and rapidly.

Today, an increase in creative aspects of productive labour is a major trend in social development. Automation of production brings a change and increase in the complexity of the worker's functions: supervision of the operation of sophisticated technical systems and aggregates, diagnosis of break-downs, a search for means to eliminate them, rationalisation. This requires

from the worker extensive scientific and technical knowledge, which is impossible without constant self-teaching and mastering of the latest scientific and technical information. On this plane, it is useful to recall what the well-known Soviet scientist Academician Stanislav Strumilin had to say about self-teaching: "Mental acquisitions, like any others, decay and depreciate greatly over time. Our scientific skills and knowledge are equally important means of production in the sphere of mental labour as are any mechanical devices in the sphere of the work of the muscles. Both are always in need of current and sometimes even capital repairs. Experts who do not refresh or enrich their store of knowledge from one day to the next, will, in the professional sense, lag behind current demands, fulfilling their work in a routine way, spoiling its social value and meaning."[1]

The ways and means of self-teaching can, of course, be completely individual and unique, depending on previous experience of work on oneself, the person's level of knowledge, his general training, interests, and so on. A person who begins to engage in self-teaching must take into consideration certain advice on how to organise his work on himself more effectively. For the purpose of self-education it is useful to read literature on the lives and activities of scientists, artists and composers—people with a creative and bold manner of thought, rich imagination, profound and diverse knowledge.

When engaging in self-teaching, it is important to take account of two possible extremes. Some people try to find out as much as possible about everything. They are equally interested in all spheres of human knowledge and arts. Others discover a profound interest in a single, selected sphere of knowledge, and they subordinate their self-teaching to this interest, devoting all their free time to it. From the point of view of the comprehensively developed personality, the best thing is a combination of an interest in various spheres of knowledge with a deeper, "preferential" involvement in one of them. Accordingly, it seems advisable to compile a special programme determining a consistent work course for improving one's knowledge which, on

[1] S. G. Strumilin, *Problems of the Economics of Labour*, Moscow, 1957, p. 336 (in Russian).

the one hand, encourages one to expand one's general outlook and, on the other, to deepen one's knowledge of one's own speciality, in a given sphere of science, literature or the arts. The results of independent work depend on how correctly this programme is compiled. The sequence of subjects in independent study exists on two planes. If, for example, the goal is to study the development of literature, painting, music and so on, it is advisable to observe the chronological principle. If, however, one is studying some relatively narrow problem, one may follow the principle of deepening one's knowledge according to increasing complexity or to topic.

Suppose you would like to study the work of Leo Tolstoy, that great Russian writer and author of the world-famous books *War and Peace, Anna Karenina* and *Resurrection.*

Tolstoy was able to raise so many major issues in his works, to demonstrate such a great artistic talent, that his name stands among the greatest in world literature.

One should first get to know the writer's biography. For example, it is interesting that, from early childhood, Tolstoy was surrounded by ordinary people—servants and peasants, and the world of these ordinary Russian people exerted a beneficial influence on the intellectual development of the future writer. Many of his childhood impressions were written down in the trilogy *Childhood, Adolescence* and *Youth.* These were the first works to bring the young writer fame. In them, Tolstoy proved himself to be an excellent psychologist, with a profound knowledge of the child's mind.

After reading the trilogy, one should proceed to the *Sevastopol Sketches* (1855), in which he already shows himself to be a mature author. He writes with veracity about how ordinary people, in no way outstanding in their daily lives, are capable of real feats for the sake of their homeland.

Tolstoy himself wrote that the hero of his book, whom he loved with all his heart, was truth. The writer followed this principle of realism in all his literary works.

Tolstoy's next major work, which he spent ten years writing, (1852-1862) was *The Cossacks.* He describes with great affection and warmth the life of ordinary people, in contrast to the emptiness and spiritual indigence of the nobility.

One should concentrate on the novel *War and Peace,* a mag-

nificent epic of Russian life. From the heroic pages of Russia's history, Tolstoy shows the best qualities of the Russian people – their courage, boldness, kindness and love of peace. This was one of the greatest works of world literature of the 19th century.

After *War and Peace,* Tolstoy spent four years writing the superb novel *Anna Karenina,* which must be read as the next stage in studying the writer's work. A major place in the novel is devoted to the problem of the family, but Tolstoy considers questions of the family and marriage as ones that are socially, politically and economically conditioned. The novel was highly appraised when it came out. After reading it, one may proceed to the author's other major works of the 1880s and 90s: the short novels "The Death of Ivan Ilyich", "The Kreutzer Sonata", "Father Sergiy", the plays "The Power of Darkness", "The Fruits of Enlightenment", "The Living Corpse", etc.

One of the author's greatest works of this period was the novel *Resurrection* (1889-1899), in which he mercilessly criticised the bourgeois-landlord state, more than in any of his previous works.

The final stage in a study of Tolstoy's works involves getting acquainted with his historical tale "Hadji Murat", the stories "After the Ball", "The False Coupon", and others, and his various articles.

The systematic, concentrated reading of Tolstoy's works allows one to get to know and assess this great writer's literary legacy and begin to understand his complex world.

Once the subject for independent study has been chosen, and the programme outlined, it is recommended that one proceed to selecting literature on each subject to be studied. Help is provided in this by handbooks and thematic catalogues.

The productivity of independent education, alongside the correct choice of literature, depends on whether the contents of what one has read are written down. Otherwise, much will be forgotten and the ideas that arose in connection with the reading are lost. Nothing helps the memory more than the written word, order and classification, which provide everyone with an opportunity always to have material collected previously at his disposal.

Sometimes a diary is kept for jotting down the main content of what has been read, for indicating the issues discussed by the

author and his suggested solutions. Most people who engage in independent study are inclined, however, to write down individual thoughts of the author or their own, arising during reading, in a special notebook.

Depending on the goal of the reading, the notes may be laconic or more developed. In the first instance, they are confined to a couple of phrases, indicating only the chief content of the book and the necessary information on the literary source. If, however, the reader encountered in the book an idea that had long interested him, it is usually written down in detail, alongside the reader's own thoughts on the issue.

The organisation of work on independent study is also of some importance. Effective organisation of intellectual work presupposes the setting of a goal, the elaboration of a mode of work, the rational fulfilment of individual thought processes (analysis, generalisation, argumentation, comparison, and the like), comparison of the goal of the work and its results.

The tasks of independent study may be extremely diverse: to obtain general information on novelties, a profound knowledge of some topic of interest, and so on. The quality and mode of mastering the knowledge depend precisely on these goals. In the first instance, for example, a whole book or article will be read rapidly. This is facilitated by the technique of speed-reading, which is easy to master if one reads the corresponding literature. This method does not claim to provide a deep penetration of the topic. If, however, a person has set himself the task of studying deeply a sphere of knowledge of interest to him, the methods he uses will be different: his efforts will be geared to mastering more profoundly not only the problem, but also the author's way of thinking (argumentation, comparison, and so on). The essential part in the material studied will be the range of basic problems that must be understood in order to orient oneself in the subject. The task consists in separating the primary from the secondary, considering precisely the chief phenomena, determining their content, how they affect other phenomena and how they depend on one another. In contrast, the memorising of unconnected facts may lead to an unstable sum of knowledge that will quicky disappear from the memory, rather than to a system of knowledge. Only identification of the chief issues, an understanding of the nature of the link between

them, as well as of their connection with material studied previously, can lead to a system of knowledge.

In assimilating new material, a person learns to analyse, generalise, demonstrate, and so on, while, by improving individual thought operations, he raises the standard of his mental activity. Alongside general questions, account must also be taken, of course, of the specifics of independent study depending on the individual's profession and the nature of his activities.

A number of works stress the orientation of self-teaching on raising the professional level: by means of self-teaching, scientists extend the range of their scientific interests, writers study works of fiction, and get to know people's everyday lives, for this is what they write about. This does not mean, of course, that scientists and writers do not solve other problems, too, in the process of their self-teaching. The lives of scientists, writers, and members of the creative intelligentsia testify, on the contrary, to a characteristic and stable tendency towards comprehensive self-teaching.

In specialised literature on self-teaching, the authors usually have in view mental workers, especially scientists and writers.

V. I. Lenin attached great importance to the political self-education of the working people. He considered as true heroes those workers who, despite the arduous and monotonous work at the factories in tsarist Russia, exhibited the character and willpower to study and develop into conscious fighters for socialism.

In the Soviet Union, workers, striving to take a more active part in building the new society, in raising the productivity of labour, not only actively acquire professional knowledge in the process of self-teaching, but also develop their creative abilities and raise their cultural level.

Even so, it is hardly worth exaggerating the successes and achievements in the matter of self-teaching or turning a blind eye to the remaining reserves in this matter. For, although this is an extremely useful and especially engaging occupation, far from everyone is involved in it. There is a variety of reasons for this. Sometimes a frivolous attitude to life: "What's the hurry?", "Life is just beginning", or "I'll finish school (college or institute), then I'll start self-teaching." There is another reason — a low cultural level of mental labour, an inability to engage in self-teaching, purposefully and effectively to expand one's

outlook and deepen one's knowledge. At the same time, these abilities may be acquired back in school or another educational institution, so that later, when working in production, they may be utilised effectively for the comprehensive and harmonious development of the personality.

Of course, poor memory may reduce the effectiveness of self-teaching and even engender a lack of faith in its possibilities. Referring to this reason ("No matter how much you read, you forget everything later"), many people cease to expand their outlook, to increase their store of knowledge, which is so essential for the development of intellectual abilities.

* * *

Usually, special research into the memory stresses its tremendous powers and compares the memory to a storeroom of unique proportions. So why are these stores so empty in some people? The fact is that the memory is not just a storeroom, but also a sort of field that has to be sown on time in order to reap a good harvest later on. This means that the memory may develop optimally throughout a person's life only if, in childhood and youth, the person receives the maximum of information to remember. It is in these years that the so-called synapses, the contact appendixes of cells signifying new capacity for memorising, form in a person's brain under the influence of new information.

How are things memorised in practice? First the so-called mechanical memory comes into play, i.e., natural memorising without the use of special means. In addition to the mechanical memory there also exists the logical memory, by which individual words, figures and images are remembered not in themselves, but in logical connection, in close association with other numbers, words and images forming so-called associative links. So the possibilities of the logical memory are much greater than those of the mechanical one. Experts long ago turned their attention to this advantage and it is not by chance, for example, that in the study of foreign languages they advise students to memorise not individual words, but the structures of whole sentences in which the words are logically linked with others.

A mature adult can memorise information much more effec-

tively as logical associations, not only in connection with the considerable powers of the logical memory, but also because the mechanical memorising is more efficient in childhood and youth.

With time, a person's memory may be compared with an effaced and scratched recording tape. It now requires considerably greater efforts to record new memory traces in a person's nerve cells, and to less effect. Of decisive significance now is the use of comprehensive measures to develop the memory.

What are those comprehensive measures? The fact is that there are different types of memory. These are particularly obvious in people with artistic talents. For example, the great Russian artist Ivan Aivazovsky (1817-1900) could draw pictures from memory, without directly seeing what he was depicting. Beethoven, when already deaf, could write complex music from aural memory. There is a third form of memory—the motor memory, when information is remembered by writing it down. In order to remember something firmly, it is naturally useful to use all three types of memory together. In this case, a given word in a book is first remembered visually, graphically. Then it is spoken aloud and to oneself and, finally, the motor memory is used and the word is written down on paper. For all the relative nature of calculations, in using the comprehensive memorising method, about 60 per cent of information is remembered, while using only one of them—about 20 per cent.

It is interesting that there are opposite opinions. Jean-Jacques Rousseau wrote, for example, that one of the specifics of his memory was that it served him only as long as he relied on it. As soon as he wrote something down, he immediately forgot what he had written.

It might thus appear that writing hampered his memorising. In fact, it was not the writing down of the information that hampered its storage in his memory, but the idea that now that the information had been set down in written form, it could be forgotten. If a person writes something down in order to remember it better, however, he is making fuller use of the motor abilities of his memory and retains more information.

The role of the orientation in memorising was tested in an interesting and simple experiment. Two groups of students were asked to memorise identical material, but were oriented differently. The first group was told that this was necessary for an ex-

periment, that they would take a test and that would be the end, while the second was told that the knowledge was important for a profound mastering of their chosen profession and would be needed at exam time.

The results of the first tests in the two groups were roughly the same, but another test taken a month later showed that the second group, which had been oriented on long-term memorising, had retained the information in the memory 30-40 per cent better than the first. Orientation also helps in recalling forgotten material. It often has what at first may seem an amazing effect: after a few hours, or even days, a person "suddenly" remembers what he had forgotten. This means that all that time, in the subconscious, under the impact of his orientation, painstaking work had been underway to recall and extract the necessary information from the memory stores.

Apart from orientation, organised repetition proves useful for memorising. Repetition is, of course, a traditional method for retaining material in the memory. True, the opposite assertions to the effect that repetition makes you forget was at one time encountered among scientists. The question arises as to why there are such opposing views on the role of repetition. Indeed, repetition used too often can lead to overexertion, to a protective inhibition of the cortex and to forgetting. At the same time, repetition correctly regulated produces excellent results. Experimental data show that after reading something two or three times and using the comprehensive memorising method, when the material has been, in the main, recorded in the memory, a further repetition is needed two or three days later. This is precisely when the information received is fixed and if the repetition is missed, after two or three days the information begins to fade and be erased very rapidly. Various mnemonic methods are used to facilitate memorising.

The German philosopher Leibnitz replaced figures with letters in order to help memorise the former, for he found letters easier to remember. Thus, people whose "number" memory is less developed, make letters of the alphabet correspond to the numbers one to ten and remember telephone numbers and complex numerical data with the use of words, which are more easily remembered.

When using any method or means for memorising, however,

one basic requirement must be observed: to avoid overexhaustion during the memorising process, otherwise, when too much effort and negative emotion is involved, the new information is fixed in places that are already overcrowded. Individual parts of the brain may, therefore, be injured by overloading. So one must be careful about the advice given by some experts who suggest bending quite considerable efforts when memorising sizeable factual material.

New means for memorising, including during sleep, can expand the memory powers of a person who is no longer young, but the use of such a method requires strict control by experts.

In studying languages, the student may listen to calm, measured foreign speech, with a translation into his own language, before going to sleep, and to this "accompaniment" he gradually falls asleep without noticing. The habit of listening to this sort of text may even facilitate sleep. After all, it is not by chance that many people read "light" literature at night, in order to get to sleep more quickly and easily (this is a traditional method).

There is also a bold prospect for the development of the memory—sort of "memory tablets" that would help a person master the information at school and in higher education quicker, learn a foreign language faster, and the like.

Such forecasts are based on interesting experimental research by the Swedish neurophysiologist Holger Hiden, who carried out experiments on animals, particularly rats. First a conditioned reflex was developed in the rats: a signal was given and food placed on a saucer at the same time. Then the saucer was gradually moved further and further away, so that the rats eventually had to find it by finding their way through a whole labyrinth. Then grey matter was taken from the trained rats and injected into other animals. This led to their developing the same reaction to the signal and the new rats proved to be already trained: on hearing the signal, they went to a specific place, via complex zig-zags of a labyrinth, and found the food. Other animals, which had not been injected, were unable to do this.

Thus, a really sensational discovery was made: information may, in principle, be transferred! Yet memory tablets are still the stuff of science fiction.

Whatever "sweet" tablets mankind might invent, labour activ-

ity and work to improve one's personality will always remain decisive conditions for the development of human abilities.

* * *

Above we have determined the ways to improve the intellect, their realisation depending on the individual synthesising in himself diverse qualities, including intellectual, moral and volitional ones. Stress was laid on the dependence between self-education of the mind and the will, purposefulness and persistence. Development of the intellect naturally presupposes constant and substantial exertion of the will, considerable work, and industriousness on the individual's part.

In the context of the given analysis, it is particularly important to assess the possibility of the nature of a person's activities, as well as his ideology and moral qualities, influencing his mind.

The first is very important, since it has become accepted practice (depending on the character of the activity in which a person is involved) to establish the most developed aspects and specifics of his intellect. Thus, a person's ability to find an optimal solution to a theoretical problem—the intellect of the scientist, is usually counterposed to the ability to solve a practical one—a practical mind. The justification given for this is that a scientist, who reveals the profound sense of phenomena, may sometimes prove helpless in everyday practical matters, in relations with other people, displaying insufficient insight. Meanwhile, a person with a practical mind cannot, in turn, solve a scientific problem.

Yet, in spite of these differences, the human mind is, in principle (though there may be specific features), universal. The intellectually developed scientist may display carelessness and excessive gullibility in everyday matters not because he is not clever or his mind has limited opportunities for development, but because he has no experience of such activity, has not seriously analysed the causes of human actions, since he has been engaged in purely scientific problems. In order to reveal one aspect or the other of the human mind, experience of a specific activity, corresponding knowledge, attention to and interest in precisely the given questions are required. Often a scientist lacks

the time to really think about and analyse what he believes to be insignificant issues. Thus, a person with a strong practical mind, too, may be completely helpless in scientific problems, because he lacks the corresponding knowledge, training and experience. A lack of interest in these problems as being abstract, a lack of intellectual emotions and experience of the pleasure to be derived from the very process of scientific search also hamper theoretical work. In other words, the personal sense, facilitating in the given activity the transfer of abstract phenomena on to the level of interesting, significant ones, is not yet formed. A person with a strong practical mind may, under the influence of training and self-training, develop in himself the ability to solve theoretical problems.

Intellect is displayed in practical and everyday matters, just as in purely scientific ones, in the ability to establish cause and effect links and dependencies, to penetrate into the essence of phenomena and events under analysis. Owing to a person's character, of course, his greater or lesser industriousness, personal interests and moral sensibility, as well as the extent to which he is involved in a given production or theoretical activity, his mind may develop and reveal itself better and more efficiently either in purely scientific or in practical terms. A clear example of an exceptional manifestation of the human mind on both the scientific and the practical plane is provided by Sergei Korolev. He, the Soviet designer of the first space rocket systems, the founder of practical cosmonautics, created the spaceships Vostok and Voskhod, in which the first ever human space flights were made and man first went out into open space.

Multifaceted development of the mind, its theoretical and practical orientation, depend on the wealth and general development of the individual.

It should be noted that even morality, an aspect of the personality so far removed from intellect, can exercise a substantial influence on the development of a person's mind. Thus, principledness, honesty and conscientiousness promoted the search for the truth, while a lack of principles and falsity often encourage a person to avoid issues that are difficult to solve mentally, to make the facts fit into already known schemas and assessments, rather than to give a more profound explanation of them, using the power of creative thought. No direct, linear connection can,

of course, be drawn between these qualities of the personality and a person's mind, but account must be taken of the fact that, in principle, the presence of different qualities creates more favourable conditions for developing the intellect or hamper its development.

At the same time, account should be taken of the fact that the mental development of a person who is unprincipled, false, unconscientious and irresponsible, but who possesses adequate and even significant intellectual qualities, may take place at an earlier stage in his life, before he acquired these negative moral features. Yet their presence may still have a negative effect on his further mental development, undermining his persistence in the search for truth in both his practical and his theoretical activities, and reducing his exactingness towards himself.

It should be stressed, in particular, that self-criticism is a vital condition for self-education and self-development of the mind. Exactingness towards oneself and a striving to understand the shortcomings in one's mental activities are important in this. Self-criticism is combined with an ability to see other people's mental qualities. It appears that the cleverer a person is, the more original and instructive features he finds in others.

In contrast, the quality that is the opposite of self-criticism—self-satisfaction—hampers mental development, making the mind idle and inert. Self-satisfaction is usually combined with a negative attitude towards the mental abilities of others.

Possible reasons for this sort of nihilism in a mentally limited person may be a protective reaction. A quite naive, but old and tried method for stressing one's own originality of mind, which Leo Tolstoy once ridiculed: "Just as the eye has a lid, so the fool has self-confidence for protection against the possibility of injuries to his conceit. And both, the more they protect themselves, the less they see—closing up their eyes tightly."[1]

Another negative factor that can reduce a person's self-criticism, in our opinion, is the quality of cunning. Unfortunately, a practical, common-sense mind is often identified with cunning, though there is a fundamental difference between the two. Cunning, the ability to deceive, to confuse, is often combined

[1] L. N. Tolstoy, *Collected Works* in ninety volumes, Vol. 4, Moscow, 1935, p. 33.

with falsity and hypocrisy. The component parts of cunning may be falsity, meanness, everything that helps to deceive other people. A cunning person may delude a cleverer one who lacks experience of interpersonal relations, is by nature honest, kind and trusting, is too busy with more important matters to consider his actions in detail. Yet a cunning person is not necessarily clever. After all, the expression "a cunning fool" was not coined by chance, and when a combination of cunning and cleverness is to be stressed, the words crafty or wily are used.

In general, cunning furthers limitedness, is most often combined with a mediocre mind. To a certain extent we may agree with Kant, who wrote that cunning is the mode of thought of very limited people and differs greatly from cleverness, which it resembles superficially. The reason for this is that cunning is often connected not only with the deception of other people, but of the self, too. A person who is accustomed to acting with cunning is usually dishonest with himself. While deceiving other people, he deludes himself, is self-satisfied, highly appraises his mental abilities, so he is not self-critical. This is the case about which La Rochefoucauld said, rightly: people are inconsolable when they are deceived by their enemies or betrayed by friends, but when they deceive themselves, they are sometimes satisfied.

Yet, although in the development of an individual's mind, serious disturbances and collisions may occur that are exacerbated by self-satisfaction, there are grounds for hoping that a person may overcome mental deficiencies that have been acquired since birth. They are acquisitions that one can well be rid of. A person's faith in his own powers is very important in this. On the other hand, many people may have individual shortcomings, but this in no way means that they should indulge in excessive self-criticism and consider themselves incapable or even stupid. The Russian literary critic Dmitry Pisarev made a profound observation: "Our stupidity is strong and its sanctuaries countless. Even the cleverest of people allocate nooks for it."[1]

In principle, if the mental shortcomings are not linked with

[1] D. I. Pisarev, *Collected Works* in four volumes, Vol. 3, Moscow, 1956, p. 31 (in Russian).

organic defects, they may be overcome by means of education and self-education. If a person who is not clever manages, under the influence of circumstances and intellectually developed people, and of well-considered criticism on the part of those around him, to overcome his attitude of self-satisfaction, stubbornness and to encourage self-criticism, it is not all that difficult to eliminate the set patterns in mental activity. Moreover, textbooks on logic may also help in this. True, a person usually manages to master the elementary modes of thought without these, just as he learns to speak his mother tongue. But if here, at this comparatively simple level of the elementary mental operations of analysis, synthesis and argumentation, there are gaps and errors, a good textbook would do no harm. Indeed, if it becomes a general principle for all people that self-satisfaction is a serious moral and mental defect hampering the development of the personality, and that a person can, and should, improve his mental abilities, the mental development of each personality may be rationally directed under the influence of training and self-teaching.

It should be noted that the close connection between the intellectual and the moral aspects in an individual's development and self-affirmation as a personality was pointed out very subtly by the Russian writer Anton Chekhov (1860-1904), who stressed that, the higher a person in terms of his mental and moral development, the freer he is. A sort of response to this idea was provided by the eminent Soviet scientist Vladimir Vernadsky, who noted that the human reason influences an individual's entire personality, when both artistic enjoyment and the elevated forms of love, friendship and service to ideals are connected with intellectual life.

Unfortunately, the personality itself, with its spiritual world of moral, humane feelings and experiences, is essentially beyond the range of vision of a person who is captive to petty, paltry interests and relations, often comes to terms with his conscience and sometimes even humbles himself for the sake of enrichment.

The striving to be original and interesting in terms of superficial features and prestige puts a person's intellectual world in the background and leads to the loss of uniqueness of the actual personality. Blind accumulation suppresses and undermines a

person's spiritual values, making him very banal and limited. The person is no longer interested in nobility and dignity in his relations with other people, but strives without restraint to seize or grasp something in life. Nor does he notice how he depersonalises and impoverishes himself. The result is not only indifference towards moral interrelations with other people, and spiritual callousness, but also a certain mental limitedness, a conscious orientation on achieving petty acquisitive goals.

A close connection between high morality and the level of intellectual development is observed in the activities of great scientists. In this respect, the reminiscences of those who knew the Soviet scientist Academician Ivan Petrovsky (1901-1973) are of particular interest. This outstanding mathematician was both a great scientist and a great teacher. His extreme personal charm and his intellectual wealth impressed all who knew him; they saw him as a model of a harmonious person whom they would like to copy as much as possible.

He possessed the gift of amazing scientific insight and the ability to penetrate the very essence of phenomena, and an equally amazing tact and sensitivity in relations with people. He was extremely modest and even shy about himself and was gently persistent and simply relentless with respect to other people's interests. But his works are known throughout the world and many students use his textbooks and will use them in the future.

The words of Academician Dmitri Likhachev are worth noting: "If the scientist seeks only the truth in science, he always achieves firmer and more reliabe results than he who 'wants to make his name'. The search for impressive and amazing results rarely leads to great discoveries, and often leads (especially in the humanities, where the experiment providing a stricter test is rare) to juggled 'firework' hypotheses, dangerous primarily for those who strive to light their touch-papers.

"A concern for the truth is fostered by a love of the people who need this truth; it is fostered by patriotism. Patriotism is a great and noble feeling, especially necessary in scientists and pedagogues, though it is, of course, needed by everyone."[1]

Thus, the development of a person's mind consists both of

[1] D. S. Likhachev, *Op. cit.*, p. 214-15.

the "polishing up" of the mental operations of the human mind and the integral development of the personality, especially its moral and volitional spheres. The improvement of a person's best qualities, his all-round development constitute a major condition for a further rise in the level of intellectual abilities, which in turn promotes the cultural and moral development of the individual.

Chapter 5

MORAL SELF-EDUCATION

Human kindness, the ability to feel joy and suffer for others, are essential for human happiness. It should be noted, therefore, that the development of kind, humane feelings in oneself is a major condition for attaining happiness.

Sometimes kindness and happiness are contrasted. It is believed that a happy person is indifferent, or even malicious, who does not get on with anyone but himself. So he is happy. This is, I believe, a great mistake. A coarse, malicious person cannot be happy simply because he has negative emotional reactions to everything.

The idea of a close interlink between a person's humane feelings and his happiness is central to the views of very many outstanding thinkers since the most ancient times. Even in the 4th century B.C., the Greek philosopher Plato asserted that by seeking happiness for others we find our own. Much later, in the 19th century, Leo Tolstoy expressed the same idea: he wrote that there is only one undoubted source of happiness in life—to live for others. The outstanding Soviet writer Maxim Gorky believed that the greatest joy and satisfaction in life was to be derived from feeling oneself needed by and close to other people.

For complete happiness an ability is needed to feel joy for someone else, to experience feelings jointly with him. In contrast, egotism and introversion greatly limit a person's opportunities.

Far from everyone, of course, can feel moral satisfaction in doing something good and humane. According to some people, personal happiness is counterposed to the interests of others. A

sort of moral deafness prevents them from perceiving these problems correctly. Let us imagine that someone without a musical ear or training goes to a concert of symphonic music. Even if, out of politeness, he pretends to pay attention, he is bored and misses the enjoyment felt by others who, when listening to music, experience a certain emotional excitement and aesthetic pleasure. The same thing applies to the world of moral feelings, of fine and lofty experiences, noble human strivings, which is not equally accessible to all people. That is why callous, indifferent people impoverish themselves.

What, then, does a person obtain from moral culture, based on humanism, moral duty, conscience, dignity and honour? Above all, the ability to experience noble moral feelings, which enlighten the human spirit. The wealth of a person's inner world is revealed when he is drawn into the world of moral ideas and feelings, which are inculcated in him both by his whole mode of life and by contact with the world of art. The latter can, without exaggeration, be called a great teacher of morality. The fact is that art draws people most effectively into an atmosphere of co-experience and emotional assessment of good and evil. A good play, film or work of art, particularly one that moves the audience, by exerting an emotional influence on the individual, arouses noble, humane feelings and thoughts. Many people who, in the daily bustle, maybe pay no attention to moral issues, led by a talented writer, playwright, or producer, now penetrate the very essence of phenomena and empathise with the heroes of the work.

After all, life is richer even than any fat book... and the ability to feel humane feelings and joy from doing something good helps a person become happier.

Moral culture allows a person not only to enter a rich spiritual world, but also helps him become free and independent of those stereotypes and primitive behaviour patterns connected with a striving to achieve prestige at any cost. A high level of moral culture and independence of thought assist in rejecting false values.

In contrast, a person of low culture and mental development is inclined to copy the most primitive types of human relations and interests. He bargains with his own conscience. His thinking is stereotyped: I must have at least as much as everybody

else—and this prompts him to waste his energies pointlessly. Since there are no limits to the lust for accumulation, such a person often remains dissatisfied with life.

As a result, the psychology of such a person begins to change and the moral standards of interrelations with other people become alien to him.

Even morally developed people do, of course, have shortcomings, and every individual is, in principle, capable of improving his moral qualities. For this he must master the "language" of moral feelings and moral principles, expand first of all his range of kind, human feelings. The mastering of moral standards is based on striving to experience joyful, kind feelings for other people, for those close to one, friends and comrades, the ability and desire to do things for them and participate in their emotional experiences.

The psychological basis of such a moral self-education is the intellectual-emotional transfer of another person's feelings to oneself. This ability is particularly obvious in family relations. It is, no doubt, a rare person who does not feel for those close to him, put himself in their position, experience their emotions, derive joy from their successes—and not only people close to him. Probably everyone emotionally participates not only in the experience of his comrades, but also the heroes of works of art and films. Remember how subtly and with what profound knowledge Dickens, Chekhov, Dostoyevsky and Tolstoy penetrated the world of the heroes of their works, how much empathy for people they revealed in their descriptions of the emotional experiences of characters that are unremarkable and, at first glance, uninteresting. The world of spiritual sufferings of "small people" is profoundly revealed in literature, and arouses genuine sympathy on the reader's part. Why, then, do not people always display such sensitivity towards their acquaintances, friends, relatives and others? Because there is no help at hand: no writer, playwright or actor to reveal the inner world of a person's emotional experiences more clearly. Yet anyone can become a "poet and artist" of the human soul himself. All he needs is to observe another person more attentively, to experience his concerns and understand his state of mind, to transform himself mentally, as it were, into the other person. This helps a person fulfil his moral duties not so much because this is required formally,

but rather because it brings him pleasure and inner satisfaction to do so.

The ability to associate and maintain good relations with people, especially against the background of permanent contacts in the family or at work, is an essential condition for a joyful, lively mood, and the main thing required for this is to display kindness and goodwill.

It is not, of course, always possible to help another person, but many people value attention to their request. Attention towards a person, a striving to help him, is also important for moral interrelations and for the emotional welfare of everyone.

It is essential to foster in oneself an ability to see and find instructive, positive and interesting aspects in the moral behaviour and the creative work of others.

It is useful to get oneself in a corresponding mood in relations with another person. To this end it is worth remembering one idea put forward by Saint-Exupéry. He wrote that the greatest luxury is human contact.

In addition, one must also try to make others interested in associating with oneself. For this purpose one should switch oneself, as it were, into the other person's interests, displaying an interest in his problems and concerns, and sympathising with his sufferings. Anyone who takes skilful account of people's natural striving towards self-assertion and helps someone else feel himself to be a clever and knowledgeable conversationalist, raises him up, as it were, in his own eyes, this person will, in turn, seem a clever and pleasant conversationalist.

Praise for people's good deeds exerts a favourable influence on many of them. Even if a person has no particularly worthy qualities, it is useful to commend at least his first attempts to do something worthwhile. After all, it is so important in contacts with other people to rely on their positive aspects! In this case even "moral credit" is used, in other words, incentives over and above services rendered, as a sort of advance on the future. This is, in a way, an expression of confidence in the individual, of hopes in his future successes. This is a good moment to recount one instructive episode in the novel *The Road to Life* by the eminent Soviet pedagogue and writer Anton Makarenko, when the educator trusted a former thief to deliver a considerable sum of money. This was not only recognition of his

full value as a person, but also a powerful incentive to trust in his own strength, and really begin a new and honest life. The young man fulfilled his teacher's assignment well and became his faithful assistant.

A benevolent association with people is greatly assisted by a combination of the position and "pose" of sympathy. Selfless assistance on another person's part, of course, arouses a feeling of gratitude in everyone. The position of sympathy is a real way to establish favourable relations. Yet the actual form of the assistance is of considerable significance. A supercilious or condescending attitude when giving help often upsets the recipient and wounds his self-esteem. This is particularly true when the assistance is accompanied by criticism and reprimands. It is not surprising that the expression: "Help me out of difficulty, my friend, but leave the lectures till later" has become an aphorism. It is better when sermons are given in a tactful and delicate form and do not undermine the other person's self-respect. It is paradoxical, but true, that people often value attention to their request, the mere desire to be of assistance, more than the fulfilment of this request, if it is accompanied by tactless or even rude remarks.

In any case, politeness in relations with others often acts as a sort of "golden key" to the house of goodwill and good relations.

An effective and very easy way to be polite is to show an ability to listen to others. To listen attentively, with a feeling of goodwill, is to incline the other person to take the same sort of attitude towards you. It is not by chance that the following expression has gained wide currency: it is good to be able to speak well, but even better to be able to listen well. One should not, of course, take over the conversation and oust the other person from it.

Modesty, goodwill and adherence to principles in relations help a person remain above empty, pointless conversations, let alone gossip and scandal. The basis of positive relations is objectivity and goodwill in assessing a third person not present. Although, in order to maintain contact, the urge to agree and to participate in gossip is almost irresistible, this can bring only temporary "success" in human relations. In the long term, according to the boomerang principle, an unprincipled assessment

bounces back, as it were, to its initiator, reducing his prestige and the confidence he inspires.

A serious attitude to relations as being of major importance for others and for oneself, an orientation on respect for an interest in the human personality undoubtedly constitute an essential condition for beneficial personal contacts.

It should be stressed that not only adults, but also adolescents and young adults are able to orient themselves on correct personal relations. They may not succeed immediately, of course, but the desire needs to be there.

It is important to emphasise that a conscious orientation on restrained, considered, worthy behaviour helps in mastering one's own emotions and maintaining a balanced mood.

Kindness towards others can and must, of course, be combined with intolerance towards vices.

The question is sometimes posed as to whether humanism and kindness are always necessary and how they can be combined with intolerance towards shortcomings. We believe these qualities not only coexist, but are mutually complementary. As the German poet and playwright Schiller noted, only a person who can, with all his heart, love good, is capable of hating evil implacably.

Indeed, a person who is indifferent, and especially evil, takes a tolerant attitude to, if not enjoys, amoral and cruel acts. Conversely, the sense of active involvement as a fighter for social progress is endemic to a humane person. What is meant is a morally active position, not just any activeness. An egoist or money-grabber may display considerable activeness, but this is done for his own sake, and such activeness conceals an antisocial stand.

A benevolent, optimistic, balanced mood is a condition of some importance for moral behaviour. A person who is constantly in a depressed, gloomy mood explodes more often, makes mistakes and even does immoral things.

The ability to control one's feelings and mood, to concentrate one's attention on pleasant thoughts, and orient oneself on positive emotions—all these can promote goodwill in people's interrelations.

Help in controlling one's moral emotions is provided by: observation of oneself, correction of one's mood, and elimination

of negative aspects in it. To this end it is useful to look at oneself as if from the outside, remembering that serious self-observation can provide a sort of mirror of the self. By critically revealing his own shortcomings, a person uses self-conviction as a means for correcting them.

Self-suggestion in all forms is, of course, merely an auxiliary means for maintaining a positive emotional state. The main condition for spiritual balance, however, is work, both mental and physical, creative labour, the enjoyment and satisfaction derived from the process of creation and its results. The role of a harmonious combination of mental and physical labour should be stressed.

With respect to moral development proper, realisation of the moral sense of human behaviour acquires particular importance. One might dispute the old "call" to work to "clean up" one's thoughts, the argument being that if one does not have bad thoughts, one will not do anything bad. Yet there is an element of truth in this, all the same. Not by chance did Chekhov, who profoundly analysed many moral problems conclude: "Everything in a person must be attractive: his face, and clothing, and soul and thoughts".

Maybe it will interest the reader to hear some of Chekhov's ideas on this count: "Well-brought-up people must, in my opinion, satisfy the following conditions:

"1. They respect the human personality, so are always lenient, gentle, polite and yielding... They do not make mountains out of molehills. If they live with somebody, they don't pretend they are doing them a favour, and when they leave they do not say: it is impossible to live with you! They forgive noise, and cold, and burnt meat, and wits, and the presence of strangers in their home...

"2. They sympathise not only with the poor and cats. They also grieve about things that are not obvious. For example, if Peter knows that his mother and father are depressed and do not sleep at night because they see him only rarely ... he hurries to visit them...

"3. They are frank and fear lies like the plague. They do not lie even over trivialities. A lie is insulting to the listener and debases him in the eyes of the speaker. They do not show off ..., 'do not try to cut a dash'... They are not indiscreet, do not

force confidences on others... Out of respect for the ears of others, they are more often silent.

"4. They do not humiliate themselves in order to arouse sympathy in others. They do not play on other people's heart-strings in order that they might respond by sighing and looking after them. They do not say: 'People do not understand me' because all this is just a striving after a cheap effect, is trite, old, and false...

"5. If they have a talent, they respect it. They sacrifice peace for its sake...

"In order to educate oneself and not fall behind the level of the environment in which one finds oneself, it is not enough... to learn a monologue from *Faust*... For this purpose continuous labour day and night, constant reading, study and will-power are required."[1]

* * *

The basis for a person's moral culture is provided by his conscience, and his ability to enforce moral self-control, to formulate for himself his own moral duties independently, to demand of himself that he fulfils them and to carry out self-assessment of his deeds.

[1] A. P. Chekhov, *Collected Works* in twelve volumes, Vol. 12, Moscow, 1957, p. 125 (in Russian).

Chapter 6

THE ROLE OF PARENTS IN CHILDREN'S SELF-EDUCATION

"No, my father doesn't love me. When I was little, he used to take me on his lap and ask: 'How are you, dear?' But now... Now I'm superfluous in the house. After all, I don't work or earn money; I just eat and wear out shoes. All I ever hear from my father is: 'Idler, you're good for nothing.' The main thing for him is that I should submit to him, no matter whether he's right or wrong. As if I were still a child... After all, I'm already in the 6th form. The others all laugh when he shouts out in the street: 'Go home, you lazy-bones, it's late.' He tells me off for every bad mark I get at school, but my mother says he used to get bad marks too... He just makes fun of me...

"My mother does love me, defends me in front of father, but she doesn't understand me either. I'm still her little baby. 'Put your scarf on, Sergei dear... Take an umbrella, Sergei dear... You'll catch a cold, Sergei dear.' I decided to develop my willpower: I put a red-hot coin on my hand, even jumped from the second floor window. But she just gasped: 'There's something wrong with Sergei's nerves.' Keeps asking me to go to the doctor.

"Doesn't understand anything... Our class went on an excursion... She says: 'Give me your hand, Sergei dear, let's cross the road.' Shamed in front of the whole school. And especially Natasha... She must think I'm a real mummy's boy. Perhaps she doesn't want to sit at the same desk with me? What sort of friend am I, if they don't even see me as an individual..."

The adolescent decides to leave home.

His mother spends ages seeking an answer to the important and difficult question: "Why has our son grown away from us?"

Anyone who really thinks deeply about bringing up children will soon find the roots of the problem in this family: the adoles-

cent is dying to become independent, an adult, painfully sees every tactless remark as mockery and every reminder that he is not yet grown-up as an encroachment on his independence. Sergei's parents make serious mistakes in their relations with their son.

"But," the same thoughtful educator will say, "we do not make such mistakes, yet we still have difficulties with our growing children. Where is the secret of upbringing? How can one find a common language with children of Sergei's age?"

We advise making use of the adolescent's striving to be independent and assert his personality and hence his inclination towards what we have called self-education. In his desire to become "like an adult" and to win respect and prestige, the adolescent tries to cultivate his will-power, courage, independence, restraint and persistence.

True, sometimes adolescents do not educate themselves in ways we like. Wanting to stress their maturity and independence, they often behave too abruptly, even rudely, and stubbornly refuse to admit they might be wrong. Many young people are inclined towards all sorts of "heroism": they run in front of cars, risk their lives swimming wide rivers; they refuse to stick to the procedure laid down for lessons and play truant. In an attempt to train their will-power, adolescents often inflict physical pain on themselves: burn and wound their hands, grasp live electricity wires. The things they think up! One boy describes his method of self-education as follows: "I put my finger between the door and the jam and my friend begins to close the door slowly. It hurts more and more. But I suffer it. The longer I can stand it, the stronger my character becomes. Then he puts his finger in the door and I begin to squash it. . . " "Self-education" of this sort may have serious consequences.

The fact the adolescent engages in self-education in no way obviates the need for parents and school to control this process in a considered, day-to-day and tactful way. One might begin as follows: tell your son or daughter what real will-power is and what wonders it can work. The whole history of mankind is an inexhaustible source of examples of heroism, courage and will-power. The adolescent may know about heroes and like reading books about them and watching films. You won't discover anything devastatingly new here; the child may know more than you

about heroes. Your task is somewhat different—to show that not only the brilliant superficial aspect of a given feat is important, this, of course, being the thing that first strikes the adolescent's imagination, but also the tremendous, protracted, intensive daily work that leads up to it. Your own experience of life should serve you in such conversations.

Having told the adolescent about will-power and courage, you will have done much, but not everything. You still have to arm him with means and methods of self-education. What are these? An adolescent often undertakes something worthwhile, only to give up halfway when he encounters difficulties. This undermines the will. He must be told that the will has to be trained, and the only way to do this is to take things through to the end.

There is no need to think up artificial tasks. Advise him to do socially useful things, to help around the house, to keep to his daily timetable. The main thing is to get him to complete anything he undertakes. Gradually, such purposefulness will become a habit for the adolescent and he will feel a sort of inner dissatisfaction if he leaves something unfinished.

It is very important to help children in their self-education to put themselves in another person's shoes and understand his feelings. After all, it often happens that people hurt others unintentionally, simply because the ability to understand and feel for others has not been cultivated in them since childhood. Sergei's mother was hardly harming her son deliberately, after all. She just did not understand him.

I know a father who found a very good way to cultivate this quality in his son Petya. Here are two episodes as examples. Once the children were playing volleyball. Petya said to a girl with a bad foot: "You limp, you'd better sit at the side and not get in the way." The girl went home in tears. "Why did you do that?" Petya's father asked. "Remember how your friends came to play with you after you'd been ill. If they'd said to you 'You're ill, we don't want to play with you,' how upset and hurt you'd have been! Just think how upset that poor girl is. It's not her fault that she's got a bad foot now, is it? How would you like it if you had a bad foot and they called you lame?" Petya hung his head, his cheeks red with shame. Finally he said sorry to the girl and later always asked her to join in the games. Once Petya started to tease a boy who was exercising on the horizontal bar:

"Awful! Boys, look how his legs are hanging down, he can't even pull himself up. . ." Petya mocked the boy until he became embarrassed and went away. Petya's father then came up and said: "Boys, Petya will now demonstrate what a great sportsman he is!" Petya could not do the exercises at all. The boys laughed. On the way home, Petya asked his father: "Why did you shame me, how can I show up again among the boys?" "Do you think it was any better or more pleasant for the other boy when you were mocking him?" was the reply.

Show the adolescent that the assertion of oneself as an individual is a comprehensive and constant improvement of all one's qualities, the overcoming of difficulties on the way to a noble goal.

Self-command may help in self-education of your child. Do not forget that self-command is often ineffective, meaning that the person lacks the stable habit of obeying himself. He needs to train. Advise the adolescent to give himself commands out loud.

Let us note that adolescents usually enjoy giving themselves commands. "Sometimes, when I'm doing my homework," one adolescent writes in his diary, "I want to go out and play, but I give myself an order: 'Stay and do your homework!'—and I do."

Here is what you might tell an adolescent about self-education. Together with his teacher, it is worth to advise him precisely what he might do in order to cultivate his will, independence, courage, persistence and restraint. In each individual case the decision must be made proceeding from the adolescent's individual features.

Finally, it is a very good idea for the adolescent to keep a "self-education diary".

Take Sergei, who began our account. The teacher went home with him. He had many talks with Sergei's parents. The parents' attitude to their son gradually changed. They began to trust him more and support his striving for independence. Together with the teacher, they suggested the idea of self-education to Sergei. This, by the way, is what Sergei wrote on the first page of his diary:

"Self-educaion of the will:

"I. Suppress bad desires, habits, feelings. Consciously observe

discipline, control myself, do not discuss outside matters during lessons. Do not earn a single reproof! 2. Always do my homework, even if it is very uninteresting and I know the teacher won't ask me for the answer. 3. Be principled right to the end; overcome the bad habit of whispering answers in class. 4. Do not take offence at a comrade if he says an unpleasant truth.

"II. Fulfil the set task! Do worthwhile and socially useful things. Make a photo collage of Leo Tolstoy. Always take class-duty seriously. Try help mother more. Always be attentive and show concern for my parents. Learn to do exercises on the horizontal bar. Do homework at a specific time (time indicated).

"Always keep my word!

"III. Put myself in my friend's position in order to understand and feel for him, be tactful and attentive towards him.

"IV. Self-command. Command myself and always fulfil a decision once taken. Do not permit instances of lack of will."

There is a lot here that is still naive, of course, but one thing is clear—the adolescent is striving to improve. This is the chief and most valuable thing in self-education.

* * *

It is good, of course, that the difficult case of Sergei's self-education ended happily. But this is one more sign that children must be introduced to self-education in early childhood, attention being focused particularly on the development in them of a noble striving to be kind, sensitive and responsive.

Kind feelings... They make our life richer and more interesting, encourage us to eliminate our shortcomings, give us warmth of friendship and comradeship.

Once I witnessed the following. A family was lying on the grass in a park. At the centre sat three-year-old Misha. He was playing up. A loving grandmother was persuading him to eat an apple.

"I don't want it," the child said, refusing the apple.

"Go on eat it, eat it quickly or Daddy will have it," the grandfather chimed in to help.

"I'll eat it myself," the boy agreed at last.

"That's a good boy!" the adults responded happily.

Years later Misha's father complains about his adolescent

son: "You know, he's growing up so selfish! I bring some oranges home, and he wants to eat them all himself. Doesn't leave any for anyone else. Once his grandmother wanted to take a sweet out of the sweet-dish, but he shouted out: 'They're mine!' How he loves himself!"

It depends primarily on the parents to encourage a child to be kind and have a humane attitude towards others. Their personal example, an atmosphere of friendship, mutual assistance and respect predominating in the family, are important. Irritability, rudeness in relations between adults, and unjust punishment of the children have a negative effect on the child's moral development.

It also happens, though, that the children of kind and concerned parents grow up callous and ungrateful. This occurs mostly in families where the adults spoil the children, giving in to them over everything, laying grounds for the development of callousness in the child.

I myself witnessed the following episode. A father did something that upset his four-year-old son Petya, who started to make a fuss. The mother laughingly said to the child: "What a naughty Daddy. Hit him, make him cry too..." The child poked his fist in his father's face. The father pretended to cry, smiling with pleasure behind his hands: at last the boy had calmed down!

I asked the parents:

"Can you imagine the moral consequences of your upbringing?"

To which they replied:

"He's too young to understand. It's too early to start real upbringing."

Unfortunately, Petya's parents are not alone in their misconceptions. They are not the only ones who think that while a child is small, their only task is to look after him. They intend to start really bringing the child up once he grows up a bit and goes to school. And what is the result? A few years later, the mother and father will complain that their grown son or daughter does not respond with kindness to the love and concern they show him or her, and distresses them with his or her tactlessness, abruptness and rudeness in their relations with their friends.

Soviet pedagogics considers it an indisputable truth that kind feelings can be cultivated in a child from earliest childhood, and

whatever the specifics in the approach to each child, with his complex and unique individuality, there is something all methods for fostering good feelings have in common: moral lecturing alone is not enough to make a child kind; an inner need to do good to others must be developed in him.

The main thing required for this is personal participation by children in work for the common good. By helping adults, the aged, and smaller children, they learn to be responsive and acquire the ability to feel joy and suffer for others. Even at preschool age, children must be taught to show concern for other members of the family and friends at kindergarten. Adults, meanwhile, by stressing the humane significance of such actions, help children to feel joy and satisfaction from their kind behaviour.

I recall one instructive instance. In one family, the mother devoted considerable efforts to her daughter Tanya, who was in the 5th form. Tanya was not made to do any housework. Her bed was made for her, her shoes cleaned.

But the girl did not value her mother's labour. Arriving home after work, the mother often heard reproofs from her daughter to the effect that her dress had been badly ironed or she did not like her dinner. The flat was usually a mess. The daughter answered any criticism from her mother irritably:

"So what! As if it mattered! It'd be easier to clear up than tell me off..."

The father came to an agreement with his wife concerning the demands they should both make on the daughter, and had a talk with Tanya.

"Of course I will help Mum," the girl agreed, adding in a hurt tone: "But I just don't understand what she's worried about. To cook the dinner or clear up is no great thing..."

From that time on the girl began to look after herself and do some of the housework. She came to realise what housework is, and only then did she really begin to value her mother's labour.

It is good for parents to make their children co-participants in many (not necessarily all, of course) of their pleasures and worries. Take another family: the mother, a geography teacher, tells her son how pleased she is when her pupils do their homework well and how upset she becomes when some of them do

not study properly. The father, the foreman of a workshop, also shares his successes and failures with his son when he comes home from the factory. The son tells them about what has happened to him at school. And so on, every day. Mutual understanding is established between parents and son, their relations are sincere, and the boy learns to look at things not only from his own point of view. For example, a new, inexperienced teacher came to the school, and Igor, the boy, told his mother: "I try to help the teacher. After all, some of the pupils make things difficult for her. They don't understand how difficult it is to be a teacher, what she goes through. If I were a teacher, I'd be worried, too, no doubt..."

In order to cultivate in a child the ability to feel for others, he must be encouraged to put himself in their shoes. This is particularly necessary when your son or daughter hurts others, either deliberately or unintentionally.

Once Misha tripped Vova up. He fell and hurt himself badly. "Never mind, you'll survive!" Misha laughed, pleased with himself. His father decided to have a word with him about it. At first the boy tried to justify himself: "I was only joking! Everyone is always doing it!" "Has anyone ever tripped you up?" his father asked. "Of course," the boy replied, seeing the question as recognition of his right to behave in the same way. "My nose even bled and I twisted my arm. How it hurt!" "Then you understand," the father said, "how bad Vova feels at the moment". Misha squirmed uncomfortably on his chair and blushed. He obviously regretted what he had done.

Fiction, films and theatre performances are a great help in instilling in children the habit of imagining themselves in the position of other people. When discussing works of art with children, it is useful to encourage them to penetrate the inner world of literary heroes, by asking them what individual characters think or feel. Thus children learn to understand other people and to consider events from their point of view.

If this does not have the desired results, it is worthwhile putting the child under conditions when he actually experiences the same as the person towards whom he has behaved badly. Once Sveta mocked a boy who had not managed to do a sports exercise. Watching this scene, her mother said: "Children, Sveta will now show you what a good sportswoman she is." But

Sveta could not do the exercise at all. The joint efforts of family and school will undoubtedly help the girl put herself mentally in the position of other people, to feel with them and to be more tactful.

It sometimes happens that an educator's attempts to form kind feelings in children are resisted and do not bring immediate results. Callousness is particularly in evidence in children at the transitional age, when, striving to be strong-willed, they seem to forget about other people.

They must be shown that kind feelings are a characteristic feature precisely of a courageous person. Excellent examples are provided by people who have found true happiness in the struggle for the happiness of others. It is worth advising children to read books about strong-willed and big-hearted people, and then to discuss with them what they have read, to help them see that the heroes display the best human qualities, such as a sense of justice, courage and the like.

* * *

Even teachers sometimes make mistakes in their work. The parent-teacher meeting of the 6th form had ended. Many parents were leaving dissatisfied... "The talk was all about the 'excellent' pupils again," one mother says. "They are diligent, and active, and at the top of the class; follow their example. And they criticised the bad pupils. But they forgot about our children altogether. Mine's an average pupil, rarely comes home with top marks. Sits quietly in class. The teachers don't tell him off. But I'm still disappointed that he can't do better and that he goes unnoticed in class, and never wins any praise. How can I make him do better?"

Let us take a look at the behaviour of this woman's son, Vova, and try to understand why he doesn't get better marks.

Vova only does his homework carefully when he thinks he'll be the one to be asked in the lesson. Once he's been asked, he can relax for a long time and not always do his homework. He is easily distracted when studying at home; his friends only have to call him and he goes out to play, without finishing his homework.

The boy is not really diligent in class. Often he is apparently

paying great attention, while in fact he is engaged in a trial of strength with his friend under the desk or day-dreaming about something else, and not hearing what the teacher is saying...

This is usually the case with mediocre pupils. The vast majority of them are average pupils precisely because they do not study hard enough and are lazy, certainly not because they lack the ability.

Many of them realise this shortcoming in themselves and, in answer to the question: "Why don't you get good marks at school?" answer: "I'm too lazy," "I have no will-power," and so on.

Unfortunately, individual teachers and parents pay little attention to pupils of this category. They are usually left to their own devices in lessons and rarely asked questions.

It is obvious that there can be no question of exactingness towards average pupils in this case. Sometimes poor teachers even express satisfaction with mediocre results. "Good, sit down, I'll give you a C," is unfortunately a quite common phrase.

Parents, too, often resign themselves to their children's mediocre results. "At least he doesn't get bad marks." Even if they do not resign themselves, they do not know how to overcome the "psychology of the average achiever" in their child.

Let us think about this. I witnessed how both teachers and parents tackled the task of overcoming this psychology in Sasha G., a six-former, who was also an average performer. Let me share some of my observations and conclusions with the reader. Above all, the parents agreed with the teachers to demand more from the boy and orient him on better results.

The geography lesson: Sasha, as usual, just about manages to scrape up an answer. "I'll have to give you only a C," the teacher says. "You obviously don't study hard enough..."

Sasha's face shows surprise, confusion and hurt. "I'll ask you again soon, and you study as you ought to. After all, you're quite capable."

Sasha blushes, shifts from one foot to the other, but his face shows pleasure—they believe in him!

Roughly the same thing happens in the other lessons. Sasha seems pleased, surprised and concerned.

The demands made on the boy at home were equally categorical. At first the parents had a talk with the boy to find out,

together with him, the reasons for his mediocre results. They came to the common decision that Sasha could do better but is too lazy, irresponsible with respect to his obligations and does not keep to a timetable.

At the end of the talk the father said: "You yourself can see that everything depends on you. You must justify our hopes. From now on you will get only good results!"

Together they drew up a daily timetable, with the precise time when Sasha was to do his homework, play outside and so on.

A couple of weeks later: Sasha works hard and he gets good marks. The measures taken thus exerted a positive influence on the boy. He perceived them as a demonstration of respect for him, as faith in his abilities and long remembered what his parents and teachers had said: "After all, you're quite capable of doing better. Everything depends on you."

Inherent in adolescents is, of course, a striving towards self-assertion, towards assertion of their personality among their friends. They want their behaviour to be approved and noticed, particularly by teachers, parents and other pupils. But this natural desire in adolescents who study on only a mediocre level is not, as a rule, satisfied, for they are rarely provided with any incentives at school. For this reason they have a particular interest and special sensitivity with respect to incentives, which usually make them extremely happy.

Incentives must, of course, be used within limits; a child must not be overpraised. This sometimes happens in a family when the parents, overjoyed by their children's successes, exaggerate their merits. In this case, the adolescent begins to see his studies at school not as the fulfilment of his obligation, but as a favour he does for the grown-ups.

Sasha's parents and teachers made full and correct use of incentives. When praising the boy, remarking his successes, they always added: "We believe that you can achieve even more." They pointed out to him the difficulties he would have to overcome. Nor did they forget about his shortcomings when trying to mobilise the child's will-power in daily labour. They also had to reproach Sasha when he slacked off and showed signs of returning to his old ways.

Thus, as a result of joint efforts on the part of the school

and the family, good marks began to predominate in the boy's notebooks. Yet, from time to time, there were lapses when Sasha began to be lazy again and display an irresponsible attitude towards his obligations. As soon as he got a good mark, he would rest on his laurels.

In order to make the next step forward in the education of the adolescent's will, the teachers and parents decided to instill in him a feeling of dissatisfaction with himself, a striving to study systematically and conscientiously. To this end, they tried to act on Sasha's self-esteem and his characteristic, as we have already noted, adolescent striving to assert his personality in the collective.

"Are you really so lazy and weak-willed... You'll always be among the last in the class... How will your friends and comrades respect you if you lack the will-power to study well? I'm ashamed of you..."

Such were the bitter and unpleasant but necessary words Sasha's father said to him.

Sasha (like many children of his age) dreams of being a cosmonaut. Famous cosmonauts were shown to him as examples and he was told that their feats were made possible only thanks to a firm and profound knowledge obtained in intensive study, the cultivation of courage, will-power and persistence in themselves.

Gradually Sasha developed a desire to find out as much as possible. On those occasions when his previous, not yet completely abandoned habit of being lazy came to the fore again, and Sasha began to study poorly, he criticised himself for lack of spirit and weak will, and promised himself to reform and take himself in hand. This means that the demands made by his teachers and parents had ceased to be demands "imposed by the will of others" and had gained ground within his own mind.

Once he got into the habit of fulfilling his tasks responsibly, Sasha actually began to enjoy lessons and derive satisfaction from studying. Gradually, as a result of systematic studies according to a timetable, the boy began to develop the habit of studying at specific time and doing his homework conscientiously. The first important steps had been made in the formation in Sasha of a responsible attitude towards study. Most important, he developed a striving to achieve better results and reveal his own abilities.

His parents continued to encourage their son's efforts both when he grew older and when, in the senior forms, he became interested in physics and chemistry. Seeing that the young man only put his full efforts into interesting subjects and had begun to overestimate his abilities, his father focused particular attention on the role of labour in any scientific achievement.

To this end, he acquainted his son with the biographies of outstanding scientists and the histories of great discoveries and achievements. The young man was particularly impressed by what the well-known scientist, Academician Ignati Petryanov-Sokolov, whose scientific works interested Sasha especially, wrote to young people: "Pathfinders of the coming generation, your share of the unknown is vast: there is plenty to discover and plenty of places to discover it.

"What talent does a scientist need?

"It is said of leading scientists that they performed a scientific feat. And Marie Sklodowska-Curie is often mentioned. Her's was truly a classical feat of patience. Everything began in the usual way: she was dying to study, but worked six years as a governess in order to help out her elder sister. When she became a doctor, it was Marie's turn: she graduated from two faculties, living at starvation level in attics. And then came two more years' manual work in a shed with a leaking roof: the loading, washing, mixing, heating and cooling of uranium ore in order to extract grains of radium from it. It was a true feat of patience, modesty and persistence.

"Anyway, patience is not the main thing. Ernest Rutherford was neither patient nor compliant. On the contrary, he was abrupt, assertive, irrepressibly persistent, sometimes a bit rude, but he could stand up for the interests of his laboratory. A different character, but a scientific achievement equal to Curie's.

"Dmitri Mendeleev was impetuous, worked in fits, with enthusiasm and quickly. He was quick in both thought and deed.

"Niels Bohr thought slowly, without rushing. He was exceptionally tactful, carefully absorbed other people's opinions and greeted presumptuous young men with the words: 'We hope to hear much of interest from you!' And this from the head of the European school of physics!

"The Soviet school of physics was founded by Abram Joffe,

who possessed the amazing ability to perceive promising fields and promising people.

"Igor Kurchatov came from this same school. He was an energetic organiser who managed, during the difficult years of the Second World War (1941-45 in the USSR), to found a new branch and a new industry. Kurchatov had the gift, desperately required by an organiser, of seeing the main thing among a tangle of different things, of inspiring people with enthusiasm of making them achieve the impossible.

"Self-sacrificing, enthusiastic, extremely modest, tactful, assertive, introvert, extrovert, prophets, founders of schools, organisers—and all of them great scientists.

"Apparently different talents are needed in science. But all these great devotees of science had one thing in common: they were all hard workers. . ."[1]

Using such examples, Sasha's parents successfully fostered in their son a striving towards the greatest possible achievements and industriousness, which became distinguishing features of his character.

[1] I. V. Petryanov-Sokolov, "Pathfinders of the Coming Generation", in: *Lenin, Science, Youth,* p. 204.

CONCLUSION

Dear reader! You have read in this book about the tremendous role of activeness in development of the personality. To confirm this, particular attention was naturally focused on the significance of activeness even on the unconscious level. The widespread opinion to the effect that a person's activeness comes into its own as a moulding force once the person has attained a sufficiently high level of consciousness, relegates to the individual a passive role in the initial period of his development. This is why some people still believe that the child is a passive object of education, whose personality may, regardless of its nature, be formed and moulded by external influence and training.

On the contrary, the main thesis of this book is that self-development of the personality through a person's activeness, initially on the unconscious level and then on the conscious level of self-education, begins at a very early age.

The role of children's activeness and especially its highest form—self-education, in the development of the personality of the growing person is stressed by many Soviet psychologists and pedagogues. The reform of general and vocational schooling in the USSR (1984) focuses particularly on the development of initiative, independent activity and activeness of children. Self-education of the personality, included in the system of social relations—that is the motive force behind its comprehensive formation. Activeness and self-education of the personality provide the basis for the author's proposition concerning a person's selective assimilation of moral standards and views as valuable and of personal significance to him. If, however, no positive attitude emerges in the child towards moral standards and rules,

he does not assimilate them and they are not transferred to the inner plane of his personality; often a merely superficial adaptation and temporary subordination to the demands of educators take place. In this case, if control on the part of adults weakens, the child is inclined to break the rules of conduct and moral norms.

Activeness of the individual naturally plays the leading role in the development of his other aspects, too. The will, as psychologists stress, is tempered in actions, in overcoming obstacles and difficulties. One specific feature of volitional activeness is effort of will, a phenomenon that distinguishes the will from similar but not identical processes. The study of efforts of will permits a further analysis of the influence exerted by activeness on the self-education of the personality.

It should be noted that a person's activeness exerts a dominating influence on the development of his intellect, too. The analysis presented in the book shows that it is precisely the absence of activeness that acts as the chief brake on the development of mental abilities. As the French writer La Rochefoucauld jokingly noted in his time, "everyone blames his poor memory, but no-one his reason". On the contrary, awareness of the tasks of one's mental self-education, an understanding of the ways and means for working on oneself, personal activeness in developing positive qualities and correcting shortcomings in one's thinking, can do much to facilitate improvement of the intellect.

Alongside the chief thesis concerning the leading role of activeness and self-education in the moulding of the personality, the book considers specific ways, means and methods for improving the best human qualities. The author expresses the hope that, after reading this book, the reader will not only have received a certain amount of information on the role of activeness in a person's self-education, but will also be able to make use of it in practice, both in improving his own personality and guiding the self-education of children.

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